

TEST AND MONITORING ENVIRONMENTAL MONITORING







TEST AND MONITORING

Test and Monitoring specialise in equipment hire.

Our range of environmental monitoring equipment is available to hire with our next day delivery and collection service. Our full equipment range is also available to hire through our award-winning eCommerce website where you can hire online, create quotes and manage your account.

Our range of environmental monitoring equipment is calibrated and maintained by our team of calibration and technical staff. Giving you confidence in the accuracy and reliability of your measurements when on-site.

Our product range is designed for use across all project types, with products that can help you remain compliant with environmental legislation and standards.

WHAT IS ENVIRONMENTAL MONITORING?

Environmental monitoring is the measuring and recording of the effects of your construction, demolition, project or work activities on the surrounding environment.



WHY WOULD I NEED ENVIRONMENTAL MONITORING?

Firstly, monitoring is good practice but more importantly, the Control of Pollution Act 1974 (COPA) stipulates conditions that must be adhered to.

Local Authorities can impose restrictions by use of a Section 60 notice or contractors can gain prior agreements via a Section 61 application.

WHAT NEEDS TO BE MONITORED?

Anything that has the potential to cause nuisance or damage to surrounding areas. The most common forms of environmental monitoring are noise levels, dust & air quality and ground-borne vibration.

However, other forms can be monitored, such as Volatile Organic Compounds (VOC's) gases, water PH levels and turbidity, water pressures, levels and flow.

WHAT TYPES OF MONITORING ARE AVAILABLE?

Our range of environmental monitoring equipment can be separated into two areas. These are Temporary Area Monitoring and Hand-Held Portable Instruments.



TEMPORARY AREA MONITORING

Fully automated systems that continually monitor and record data to a cloud platform. Producing regular reports and sending push notifications or custom alerts directly to you. Installation is carried out by our experienced environmental installation technicians.

HAND-HELD PORTABLE INSTRUMENTS

Require an operator to use and although some report data to a cloud-based platform in an automated fashion, most require some form of manual download or have a dynamic interface.

Most hand-held instruments can be shipped, with next day delivery available across our range.

WHERE DO I GO TO GET EQUIPMENT OR ADVICE?

Sunbelt Rentals Test and Monitoring have a number of environmental monitoring specialists, who will be happy to advise and assist with which products will best suit your requirements.

Our range of environmental monitoring equipment is also available to hire online, with online accounts, live chat and technical support from industry experts.

See the contact page for depot locations and contact details.

CASELLA GUARDIAN CONFIGURABLE ENVIRONMENTAL MONITORING STATION

Industry-leading 'all in one' environmental monitoring station with the following sensors all fitted as standard.

- Class 1 noise monitor
- PM10, PM2.5, PM1 dust particulate monitor
- 3 axis vibration geophone
- Ultrasonic wind speed & direction sensor

The Guardian is the UK's leading product for remotely monitoring site perimeters. Once powered, the unit will continually monitor user-determined parameters and automatically upload to a cloud-based platform. The unit will generate a multiple format report on a schedule assigned by the user.

The Guardian will also email or SMS alert users,



in realtime, should any preset levels be exceeded. Guardians can be powered by a 110 – 240Vac, 12Vdc battery, a combination of both (for generator-powered sites) or a stand-alone solar option. The Guardian can be configured according to your projects needs, and we only charge for the sensors you require.

There are additional sensors for VOC's or gases that can be added on request. A complete solution for vibration, dust, noise and wind.





AVA M80 VIBRATION MONITOR

Battery operated vibration monitoring system with a battery life of up to 6 months

- Can be securely fixed into place to continuously monitor ground-borne vibration.
- All data is uploaded to a cloud-based platform for users to access and analyse. The M80 can also be configured to alert users in real-time, via email and SMS should any preset levels be exceeded.
- An excellent solution to longer-term demolition or construction projects, earthworks, work adjacent to buried services, party wall agreements, above tunnels or close by to listed buildings.





SVANTEK SV307

Noise monitoring station designed for long term noise monitoring

The SV 307 integrates a Class 1 sound level meter with a modem in the removable waterproof housing. The SV 307 is equipped with a new MEMS microphone. The measurement data is stored on the microSD card.

- The SV 307 is designed for permanent noise monitoring, it has been equipped with a patented double self system check: an inbuilt reference sound source producing 100dB at 1 kHz plus a real-time check based on a reference microphone.
- The SV307 can also record audio files of any level breach, which allows users to identify root causes.
 All data is automatically uploaded to SvanNET, for instant viewing or playback by the user.
- An excellent solution for construction and demolition projects, Section 61 compliance, projects adjacent to schools, hospitals, universities and local residents.







IMETOS ENVIRONMENTAL STATIONS

Solar powered environmental monitoring system

All instruments and sensors utilised come from the market leading PESSL Instruments. The range of sensors available is extremely wide. The standard product configurations available from Sunbelt Rentals include

- Flood warning
- Real-time pH monitoring
- Wind speed
- Wind direction
- Frost warning
- Tipping bucket rain gauge
- Temperature & humidity
- Water level
- Embankment stability through soil moisture



The iMETOS systems are designed to be used in remote locations and are supplied with an inbuilt solar panel and battery system. With ever-changing climate conditions, these units are becoming increasingly popular. Applications commonly include use in and around flood plains, rivers and reservoirs.

iMETOS systems can be tailored to meet your exact needs. They are an invaluable asset for remotely monitoring climate or environmental changes, and sending alerts when these changes happen. Data can be instantly viewed and analysed from the online portal and email and SMS alerts can be configured.

- Whatever your application, speak to our environmental specialists to see how we can assist.
- We can tailor the system configuration to exactly match your project requirements.

Hand-held portable instruments

SOUND LEVEL METERS

Sound level meters are divided into two classes, Class 1 or Class 2.

A Class 1 sound level meter is often called a 'precision' grade meter and a Class 2 sound level meter is a 'general grade' meter because of their different tolerance levels.

Class 1 is often used for environmental monitoring

Class 2 is used for noise at work assesments



Noise At Work Act www.hse.gov.uk/noise

At lower and upper extremities of the sound frequency range tolerances are wider, and at higher frequencies, the tolerances are narrower. At the outer extremes of the frequency range, you can expect Class 1 meters to have narrower tolerances and therefore a more accurate response.



CASELLA MEASUREMENT CEL633 CLASS 1 SOUND LEVEL METER

Class 1 microphone suitable for environmental noise surveys

- 1/1 and 1/3 octave band analysis
- Audio (WAV) recording
- Supplied with CEL-120 acoustic calibrator
- Occupational and environmental noise measurement
- Calculation of noise exposure
- Boundary noise assessment & noise complaints







CIRRUS CR 171B CLASS 1 SOUND LEVEL METER

Class 1 sound level meter with data logging capability

- Monitor, record and analyse noise assessments easily, whether you are on a construction site, conducting a boundary noise assessment or measuring noise in a factory setting
- Class 1 integrating sound level meter with real time 1:1 & 1:3 octave band filters
- Audio recording, data logging
- CR:515 Class 1 acoustic calibrator



SVANTEK 971 CLASS 1 SOUND LEVEL METER

Class 1 sound level meter designed for 1/1 & 1/3 octave analysis

- Class 1 sound level meter in accordance to IEC 61672-1
- Suitable for noise surveys
- Commonly used for assessments in workplaces
- Simple operation, with start/stop mode for quick measurements
- Predefined setups and reports with Supervisor+ software









CASELLA CEL 246 CLASS 2 SOUND LEVEL METER

Rugged design suitable for most environments

- Measures instantaneous, maximum levels
- Fully compliant with IEC 61672 2002 class 2; IEC 60651 type 2 1979
- 30 130 dB RMS measurement range



CASELLA NOISE DOSIMETER D-BADGE 2 ATEX

Wearable device that accurately measures environmental noise levels

- Measurements in accordance with ISO9612:2009, CFR 1910.95 (USA), L108 Controlling Noise at Work (UK)
- Identification of noise sources
- Assist with selection of hearing protection
- Non-atex product variations also available
- Kit of 3x available with charging dock





CIRRUS CR 162C OPTIMUS SOUND LEVEL METER

Class 2 sound meter with 1st octave band analysis

- Up to 30 seconds of audio recording
- Useful for occupational & industrial hygiene noise evaluations
- Can be used to help meet UK and EU regulations, measure to OSHA HC & PEL, MSHA
- Common applications include machinery noise tests, general noise measurements





DUST & PARTICULATE MONITORS PM stands for particulate matter (also called particle pollution): the term for a mixture of solid particles and liquid droplets found in the air. Some particles, such as dust, dirt, soot, or smoke, are large or dark enough to be seen with the naked eye. Others are so small they can only be detected using an electron microscope. Particle pollution includes: PM10: inhalable particles, with diameters that are generally 10 microns and smaller PM2.5: fine inhalable particles, with diameters that are generally 2.5 microns and smaller PM4.25 is respirable in lungs PM2.5 IN LONDON MAYOR OF LONDON **UK GOVERNMENT AIR QUALITY FACT-SHEET** SUNBELTRENTALS.CO.UK FOR MORE INFO





Wearable device that accurately measures environmental noise levels

- Up to 500 measurements can be taken and stored with the large internal memory
- Data can be downloaded into Casella insight data management software
- Can be used for spot checks and walk-through surveys with the advantage of seeing instantly when and where excessive dust levels are occurring
- Sampling for total, respirable, PM2.5 or PM10 with optional adaptor
- Perfectly suited to indoor use such as manufacturing plants, sawmills, bakeries and warehouses



CASELLA DUST DETECTIVE

Gives the user the ability to conduct the environmental surveys necessary to sample air quality, and accurately determine dust levels within a site area

- Combines all the features of the Microdust Pro with the addition of a sampling pump which is all housed within a rugged casing which meets IP65 standard
- Suitable for both indoor and outdoor use
- The internal battery allows use for up to 13 hours





AQMESH POD WITH PARTICULATE MONITORING + 4 GAS SENSORS + SOLAR POWER

Designed to help you monitor air quality, urban pollution, harmful pollutants, PM 2.5, NO2, O3, VOCs with excellent live connectivity options and cloud data storage

The AQMesh pod is easy to install, a small and portable unit that can be used across multiple site types

- Units can be used for long term monitoring of dust and particulate matter on construction sites, in public places such as city centres where pollution levels need to be monitored or across petrochemical, oil and gas, waste management and agriculture environments.
- Can be configured to measure your chosen gas
- Solar power option available boosting your site's green credentials



- Customisable alerts when levels reach user-set thresholds
- Dedicated servers for cloud storage and instant data access





Continuous real-time particulate detection with instant customisable alarms

- XD One is personal, portable and mountable
- Self-contained unit with no tubes, sampling heads, impactors, pumps, or filters
- Integrates with free BreatheLITE software for full data analytics
- Customisable alarms for PM1, PM2.5, PM4.25 and PM10





TROLEX AIR XS SILICA MONITOR

A robust and accurate real-time detector of RCS (Respirable Crystalline Silica) in challenging workplace environments

- Uses Optical Refraction Technology to deliver realtime readings of dangerous RCS particulates in airborne dust mixtures
- Analyses multiple detection parameters for silica including size, symmetry, and a series of optical markers unique to RCS particulates
- Suited for use across multiple industries
- Robustly built with stainless steel exterior and IP65 protection



INL1328

PORTABLE VIBRATION MONITORS

All Sunbelt Rentals vibration monitors comply with BS5228-2



SIGICOM INFRA C22

Wireless triaxial vibration monitor

- 4G vibration monitor designed for the demands of the construction industry with 4 months of internal battery power.
- The Sigicom INFRA C22 is the perfect device for logging data whilst simultaneously monitoring vibration. 4 months of battery power makes the C22 a good choice for medium-long term monitoring on construction projects.
- A robust design ensures reliable performance throughout changing weather conditions.
 Push notifications can be sent to your device when user thresholds are breached. You can set the device to comply with your local standards to ensure compliance.
- Results are recorded and can be used to generate reports and presentations through INFRA net.
 INFRA net also allows the user to monitor multiple units, potentially across multiple sites. 1GB internal memory as standard.
- You can find a comprehensive list of national and international standards that the INFRA C22 supports by scanning the product QR code.



INSTANTEL MICROMATE

Seamlessly record vibration, sound/noise level, or air over pressure with just one monitoring unit



- The Instantel Micromate vibration monitor records all data to its own internal memory. This can then all be downloaded via the supplied USB drive and transferred into the supplied software to create multiple format reports.
- The unit is ideal for dynamic monitoring as results can be seen as they occur on the full colour touchscreen. The unit has a rechargeable internal battery and is supplied with a wall charger.
 Sunbelt Rentals also offer the option of an outdoor Peli-case with extended battery life and external alert beacons.
- An excellent choice for foundation engineers, piling technicians, groundworks adjacent to buried services, high pressure pipework or projects with nearby telephone or switchgear exchanges.



ACCUDATA GVM1 SEISMOGRAPH

Measure ground-borne vibration during civil engineering works in compliance with BS 5228-2:2009

- The GVM-1 seismograph has been designed for ease of use to measure ground-borne vibration during civil engineering works, e.g. piling.
- Features a high-resolution colour touch screen with an intuitive menu.
- 5 day battery life.
- Easy-to-Use with two-button operations.







FLIR E50BX THERMAL IMAGING CAMERA

Highly sensitive imaging camera for building diagnostics

- Enables the operator to locate hot or cold spots that could be responsible for significant heat losses or water ingress
- Small temperature differences can be a pointer to damaged of missing insulation
- Wi-Fi connectivity to share critical information quickly
- 0.045°C at 30°C Thermal Sensitivity





ROTRONIC HL-20D HYGROLOG TEMPERATURE & HUMIDITY LOGGER

Accurate humidity and temperature measurement

- Applications include monitoring temperature in controlled environments such as offices, laboratories and factory settings
- 20000 data point memory with date and time stamps
- USB interface allowing connection to PC
- Conforms to FDA21 CFR Part 11 and GAMP4
- Accurate measurements with large device memory and long battery life





TSI AIRFLOW LCA 301 ROTATING VANE ANEMOMETER

Simple to use, reliable and accurate, handheld rotating vane anemometer

- Accurate and reliable readings
- Calculates volumetric flow rate
- Automatic averaging of air velocity
- Reversible 100mm head allows readings at supply and extract grilles





KIMO INSTRUMENTS AMI 310 MULTIFUNCTION TESTER

Measures simultaneous parameters including pressure, temperature, humidity and air quality

- Expandable memory with micro-SD card
- Inter-changeables modules
- Two inputs for PT100 temperature (from -200 to +600°C)
- Designed for testing airflow, pressure along with the measurement of hygrometry, temperature,
 CO2, CO & Air Velocity





CHAUVIN ARNOUX C.A 1110 LIGHT METER

Can measure the illuminance of all light sources including LED and fluorescent light sources

- The device itself can measure up to 200,000 lux which is in compliance with the Class C,
 NF C 42-7210 standard
- Communicating via USB or Bluetooth
- MAP function for mapping the illuminance of a surface or room

 C.I.E. spectral correction and incidence correction





NL ACOUSTICS PARTIAL DISCHARGE & AIR LEAKAGE DETECTION CAMERA

Designed for detecting both air leaks in compressed air systems and partial discharge in high voltage systems

- Easy reporting tool for sharing repair and maintenance plans
- ISO5001-compatible reports for air leaks
- Detects problems

 in power grid
 components before
 they start to heat up
- No direct line of sight is required, saving money and improving energy efficiency
- Pinpoints tiny leaks and shows leak size and cost estimate



CLIMATE CONTROL

REMEMBER It is legal requirement for proper engineered controls, including monitoring, containment and control measures, to be used when risk of exposure is identified. For more information and guidance visit www.hse.gov.uk.



CLIMATE CONTROL ENQUIRIES 0800 630 0472

climatecontrol@sunbeltrentals.co.uk

Dust is produced when materials are cut, drilled, demolished, sanded or shovelled but not all dust particles are the same, and some are more harmful than others.

Inhalable Dust

Gets into the mouth and nose

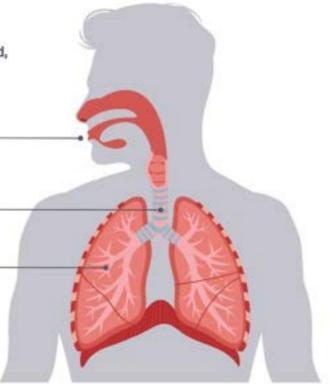
Thoracic Dust

Reaches the upper respiratory area.

Respirable Dust

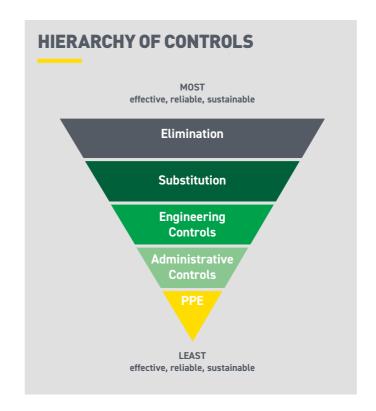
Reaches the finest parts of the lungs

Long-term, dust can cause serious health problems, with many only becoming evident after a long period of time and when it is too late for treatment. Therefore, effective dust control is vital.



The importance of indoor air quality. The average person spends up to 90% of their time indoors, therefore it is extremely important to maintain good air quality.

The risk of exposure to hazardous contaminants and pollutants greatly increases when working indoors, effective monitoring and controls reduce the risk of long-term disease and poor health.



FACTS

- 17,000 new self-reported breathing or lung problems are made worse by work every year.
- 12,000 lung disease deaths every year are estimated to be linked to past exposure in the workplace.
- An estimated **40%** of new cancer registrations and deaths are in workers who were exposed to medium or high levels of hazards in the workplace.
- Humans can inhale anywhere between **17,000 to 30,000** litres in a 24 hour period, making exposure to hazards the easiest route to poor long-term health.

HIERARCHY OF CONTROLS

The most effective strategy for reducing the risk is to remove the hazard completely, or change the way the work is done, however that is often impractical, or not possible at all in some cases. We provide a complete range of monitoring equipment to ensure a safe working environment as well as control measures if exposure exceeds the recommended limits.

SITE CONTROL

In the Construction, Infrastructure, Manufacturing and Industrial sectors there is a higher risk of exposure to contaminants such as dust, fibres, fumes, mists and gases which can have a significant impact on workers' health if exposed to them even over a short period of time.

Our range of products can effectively control these hazards with on tool extraction, mobile filtration and designed for purpose Local Exhaust Ventilation (LEV).









INFECTION CONTROL

Indoor air quality is one of the leading priorities for critical environments such as hospitals, pharmaceutical and clinical research areas. Good environmental hygiene significantly reduces cross contamination and transmission risk.

Infection control extends past airborne pathogens - risk of fatality increases by 80% in inpatients with already compromised immune systems when exposed to additional hazards, such as aspergillus mould and dust, caused by maintenance and construction works in clinical environments.

It is extremely important that adequate control measures are put in place when reviewing infection control risk assessments (HBN 00-09).

S400 AIR DISINFECTANT DEVICE

- The S400 Air Disinfectant Device disinfects the air, creating a safe and comfortable environment for everyone.
- Unlike other air purifiers, our machine combines HEPA filtration, UV-C technology and carbon filtration with fast-moving air to kill 99.9995% of all airborne viruses and germs in your environment within minutes.



HEPACART® MOBILE CONTAINMENT UNIT

- The HEPACART® Mobile Containment Cart has been engineered and constructed by healthcare contractors for healthcare contractors.
- It is designed to make dust containment and infection control in high-risk environments easier to handle, without compromising on essential safety protocols.
- HFPACART® takes less than two minutes to set up or take down to move to the next work point.
- It can be used to create a safe space for removing ceiling tiles, minor duct work or electrical work above ceilings in hospitals or other sensitive environments.

HEPACART® ANTEROOM

- The award winning HEPACART® AnteRoom is a temporary room isolation module that serves as an entryway or vestibule into any larger room undergoing maintenance, renovation or construction.
- It is mobile, extendable and easy to install within five minutes, providing total room isolation for any door size.
- The AnteRoom is the perfect containment measure to mitigate patient risk from work dust and other related contaminants.





VENTILATION CONTROL

A shortage of oxygen or an excess of carbon dioxide (CO2) or carbon monoxide (CO) can rapidly lead to serious health problems or even death.

These are odourless and invisible threats and therefore hard to detect and protect against.

Both monitoring and adequate ventilation should be implemented when working in confined or enclosed spaces. Much like a building will have a HVAC system, a work area will also need ventilation to ensure the safety and comfort of workers.

Adequate supplies of fresh air and extraction are important for diluting dangerous concentration levels of harmful gases and contaminants.

Fans and ducting can be used to maintain healthy oxygen levels and ensure that dangerous gases are removed from the working atmosphere. We supply a complete range of products and can tailor a solution for effective control suited to specific environments.

20.9%
OF THE AIR IS MADE UP OF OXYGEN.



THE EFFECTS OF THE OXYGEN LEVEL CHANGING IN THE AIR

Oxygen Level in the air

| 12% | 15% | 19% |
|-----------------------------------------------------------------------------------------------|---------------------------|-------------------------------------|
| Causes immediate symptoms of nausea and fainting with permanent damage caused within minutes. | Co-ordination is affected | Concentration is seriously affected |



CONTAINMENT

Using a physical structure to reduce the size of the working area allows for a more effective control, as well as preventing or limiting migration routes of airborne hazards.

This can also reduce noise levels of works being carried out and influence pressure differentials between clean and less clean areas.

STARC® WALL SYSTEMS

■ The STARC® Wall System exceeds standards as a simple, easy-to-use, and environmentally friendly alternative to other temporary dust containment options. These airtight walls can be configured in virtually any shape, whilst the telescoping design ensures an airtight seal, no matter what the shape or size of the contained space. It also boasts a 25 decibel sound reduction thanks to its insulated urethane foam core. STARC® systems offer an effective, fast and reliable solution to containment, infection control and noise complaint issues.



DECIBLOC CUTTING STATION

- The DeciBloc cutting station creates a standalone cutting zone within a site and features left and right ports to facilitate the cutting of longer materials.
- The rear vent allows for effective dust or fume extraction.
- It is a cost-effective solution and ideal for universal applications.

SHEERSPEED POP UP CONTAINMENT TENTS

- The Sheerspeed pop up containment tent can be used outside to provide shelter whilst working, as well as limiting the migration routes of coarser dust from work such as block and stone cutting.
- The tent provides a versatile re-usable solution and can be assembled in just 10 seconds.







FACE FIT TESTING

Where respiratory protective equipment (RPE) is used as a control measure under health and safety legislation, it is vital that the selected RPE is both adequate and suitable.

To ensure that the selected RPE has the potential to provide adequate protection for individual wearers, the Approved Codes of Practice (ACOPs) supporting the Control of Substances Hazardous to Health Regulations (COSHH), the Control of Lead at Work Regulations, the Control of Asbestos Regulations, the Confined Spaces Regulations and the Ionising Radiations Regulations stipulate that tight-fitting RPE should be fit tested as part of the selection process.

What do we offer?

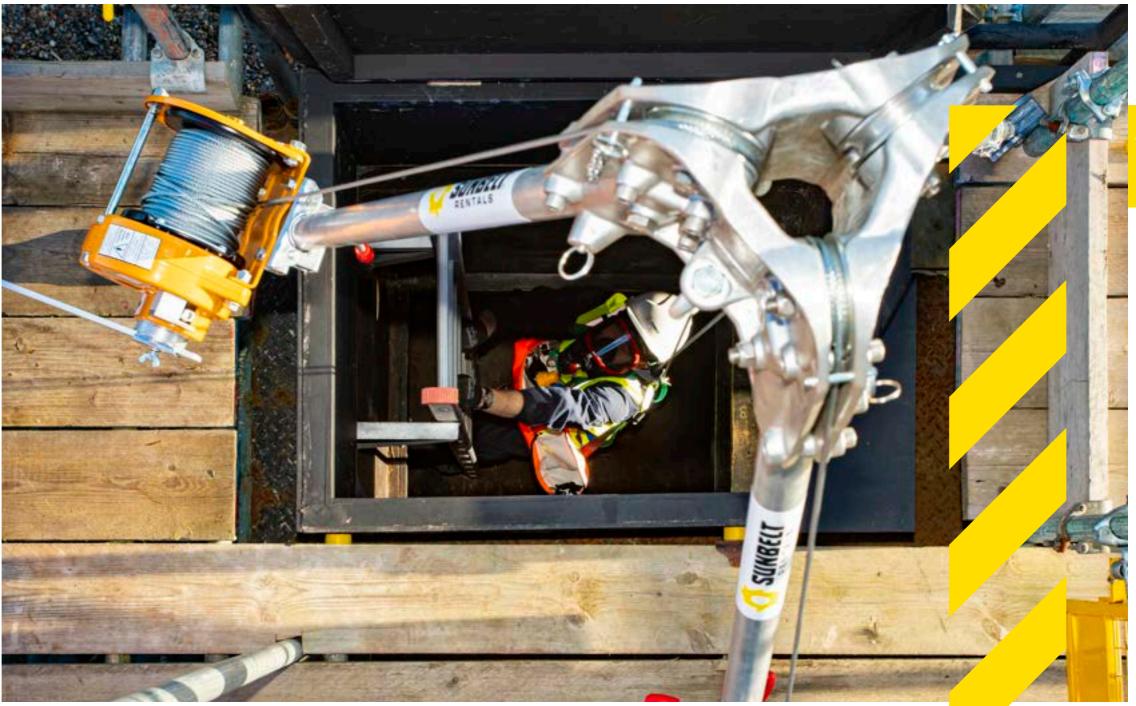
- FIT2FIT accredited Quantitative and Qualitative Face Fit Testing
- Qualitative and Quantitative Train the Tester courses
- RPE User's Training
- RPE Maintenance and servicing
- RPE Supply
- Powered Respirators
- Qualitative and Quantitative Test kits and solutions

SPECIALIST SOLUTIONS

Specialist Solutions is a business unit within Sunbelt Rentals that houses six specialist businesses. Climate Control, Safety and Communications, Survey, Lifting, Industrial and Test and Monitoring.

Each specialist business offers a range of rental equipment, expert-level technical support and dedicated sales teams to help you find the right solution for your project.

To find out more visit sunbeltrentals.co.uk



CONTACT INFO

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environmental@sunbeltrentals.co.uk

CLIMATE CONTROL ENQUIRIES 0800 630 0472

climatecontrol@sunbeltrentals.co.uk

SAFETY AND COMMUNICATIONS (FACE FIT TESTING) 0330 1758 996

rpe@sunbeltrentals.co.uk



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TEST AND MONITORING LOCATIONS

LONDON, HEATHROW

Sunbelt Rentals UK Test and Monitoring

242-252 London Road, Staines, London TW18 4JQ 0333 122 3126

www.sunbeltrentals.co.uk/find-a-depot/london-heathrow

REDCAR

Sunbelt Rentals UK Test and Monitoring

Unit 5 Kirkleatham Business Park, Redcar TS10 5SQ 0370 330 6021

www.sunbeltrentals.co.uk/find-a-depot/teesside

STOKESLEY

Sunbelt Rentals UK Test and Monitoring

2 Ellerbeck Way, Stokesley Business Park, Stokesley, North Yorkshire TS9 5JZ 01642 718 900

www.sunbeltrentals.co.uk/find-a-depot/stokesley



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