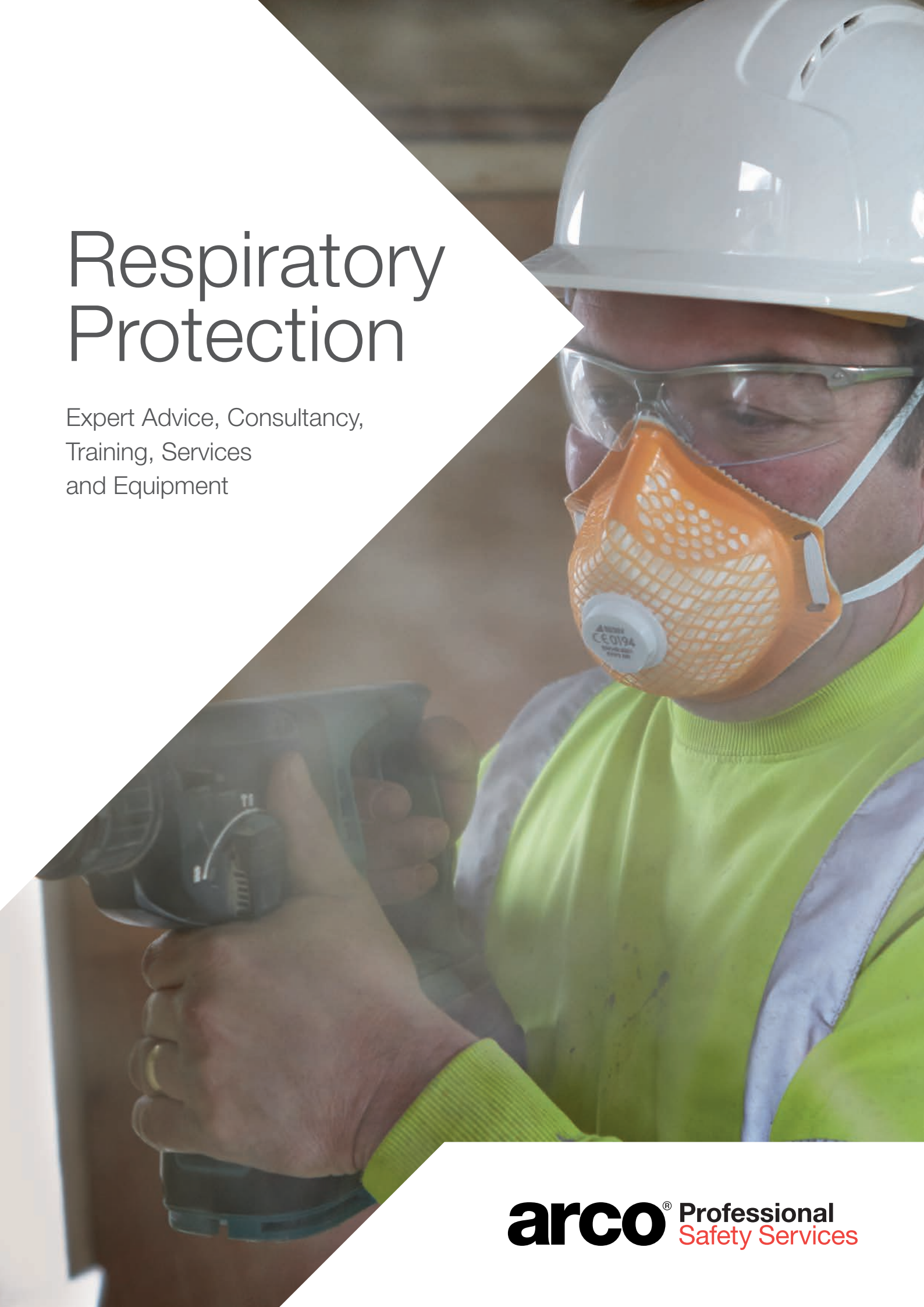
Respiratory Protection

Expert Advice, Consultancy,
Training, Services
and Equipment



arco® Professional Safety Services

Contents

Arco Professional Safety Services

Arco Professional Safety Services provide consultancy, training, services and equipment to manage the most complex and high-risk, high hazard scenarios. Specialising in working at height, confined spaces and respiratory management, expert knowledge and experience mean the team can deliver solutions for situations with the highest risk of serious injury or irreversible damage to health.

Consultancy

Consultancy

Consultants work in a strategic manner bringing a wealth of real-world health and safety expertise plus an understanding of specific hazards that enables them to develop solutions that really add value. They can help with risk management, risk mitigation and risk transfer solutions, helping clients to control, manage or even transfer the full spectrum of high risk, high harm challenges.

Training

Training

Training can be off the shelf or tailor-made and can be delivered on or off-site. Purpose-built training facilities provide effective learning environments which can accommodate a range of different learning styles and highly skilled specialists are qualified to support senior executives and middle management through to operatives.

Specialist training is provided in:

- Working at height
- Confined spaces
- Respiratory
- Health and safety

Services

Services

Respiratory Protection Services

Our specialist Respiratory Team can offer expert advice on all aspects of respiratory protection and how to implement an effective RPE programme, from face fit testing, to respiratory training, and RPE servicing and maintenance.

Access and Rescue Services

Our end-to-end approach means we can develop bespoke solutions to help you manage, mitigate or transfer the risk to us. We offer working at height access solutions, engineered fall protection and access systems plus testing and recertification of systems.

Equipment

Equipment

Our impartial advice can help you find the most suitable combination of technical products for your specific risks.

We offer:

- **Equipment sales** - A comprehensive range of equipment for you to purchase.
- **Equipment hire** - A full selection the most current technologies from leading specialist suppliers for you to hire on standard or long-term contracts.
- **Equipment maintenance** - Scheduled maintenance and calibrations of your equipment by our trained engineers.

Managing respiratory risks can feel like the most challenging area of safety. As well as technical considerations, the long latency of work-related respiratory illnesses often means that problems aren't detected until years later.

There are an estimated 19,000 new cases of breathing or lung problems each year that individuals thought were caused or made worse by work[1] and approximately 12,000 workers die annually from lung diseases linked to past exposure at work[2]. It is essential for employers to understand the effects this type of exposure can cause and take steps to protect their workforce against it.

Many materials and substances used or created at work could harm your workers' health. Each year thousands of workers are affected by breathing in substances in the form of dusts, mists, fumes, gases or vapours, with long-term exposure seriously impacting their health and wellbeing. Ill health caused by these substances is preventable if control measures are used and managed properly in the workplace. Our lungs allow us to sustain life in the most unusual circumstances and we only get one set in a lifetime, therefore it's essential we look after them.

Arco Professional Safety Services are committed to keeping people safe in the workplace. We are a market leader in the provision of respiratory management solutions. These solutions include consultancy and risk management, specialist respiratory services including asset management, expert training and equipment for managing respiratory risks.

An estimated 19,000 new cases of breathing or lung problems each year are reported to be caused or made worse by work

1. https://www.hse.gov.uk/statistics/causdis/respiratory-diseases.pdf
2. https://www.hse.gov.uk/aboutus/occupational-disease/respiratory-disease.htm

Legislation

Employers have a legal responsibility to protect workers from health risks caused from hazardous substances at work. Only after all other reasonably practicable measures to prevent or control exposure to harmful substances have been implemented, should Respiratory Protective Equipment (RPE) be used in the workplace.

Regulations

The Health and Safety at Work etc. Act 1974 and the Management of Health and Safety at Work Regulations 1999 set out the basic requirements for employers to provide and maintain a safe working environment, so far as is reasonably practicable.

Control of Substances Hazardous to Health (COSHH) regulations sets out the legal requirements to protect workers from health risks caused from hazardous substances at work. COSHH states that, where it is not reasonably practicable to prevent exposure to a hazardous substance, control of that exposure should only be treated as adequate if:

- The principles of good practice for the control of exposure are applied
- Any workplace exposure limit (WEL) is not exceeded
- For a substance that has the potential to cause cancer or occupational asthma, exposure is reduced to as low a level as is reasonably practicable

Employer Responsibility

Employers have a duty to carry out a suitable and sufficient risk assessment and take steps to ensure they prevent or adequately control exposure. Going through the risk assessment process, required by law, can determine whether the use of RPE is necessary in your workplace.

RPE may need to be used to satisfy requirements in the following pieces of legislation, additional to the COSHH Regulations 2022. These need to be considered as to whether the regulations apply to you and comply with any specific requirements they contain on RPE:

- Control of Asbestos Regulations 2012
- Control of Lead at Work Regulations 2002
- Ionising Radiations Regulations 2017
- Confined Spaces Regulations 1997

To be compliant, RPE used in the workplace must be CE-marked. This ensures the piece of equipment has been manufactured in accordance with the Personal Protective Equipment Regulations 2002 and meets the minimum legal requirements for its design. Whilst the four-digital code is used to identify the body responsible for checking manufacturing quality, it does not indicate that the piece of equipment is adequate or suitable for use in the workplace. It is the employers' responsibility to select the correct RPE to meet the specific requirements.

Is PPE the Right Control?

RPE can be uncomfortable to wear and interfere with work, which can lead to incorrect use. It is important for any RPE provided to be worn properly and maintained to ensure the wearer receives the required protection.

You should only select and use RPE:

- Where an inhalation exposure risk remains after you have put in place other reasonable control
- While you are putting in place other control measures
- For emergency work or temporary failure of controls where other means of control are not reasonably practicable
- For short-term or infrequent exposure, such as maintenance work, where you decide that other controls at the source of the exposure are not reasonably practicable.

Respiratory Protective Equipment EN Standards

For effective protection which complies with the legal standards, you must ensure that your chosen equipment has been tested to the relevant EN standards for RPE:

BS EN 136	Full face masks
BS EN 137	Self-contained open-circuit compressed air breathing apparatus with full face mask
BS EN 140	Half masks and quarter masks
BS EN 143	Particle filters
BS EN 149	Filtering half masks to protect against particles
BS EN 402	Self-contained open-circuit compressed air breathing apparatus with full face mask or mouthpiece assembly for escape
BS EN 403	Filtering devices with hood for escape from fire
BS EN 405	Valved filtering half masks to protect against gases or gases and particles
BS EN 1146	Self-contained open-circuit compressed air breathing apparatus with a hood for escape
BS EN 12941	Powered filtering devices with a hood or a helmet
BS EN 12942	Power assisted filtering devices with full face, half or quarter masks
BS EN 14387	Gas filter(s) and combined filter(s)
BS EN 14594	Continuous flow compressed air line breathing devices

Respiratory Hazards

Thousands of workers each year are affected by breathing in hazardous substances in the workplace, with long term exposure seriously impacting their health and wellbeing.

There are three common routes for occupational exposure to hazardous substances:

- Inhalation by breathing in airborne contaminants into the lungs
- Ingestion by hand to mouth contact
- Absorption through the skin such as exposure to chemicals

The respiratory system provides the quickest and most direct route of entry, which can be attributed to the fact that the respiratory system has a direct relationship with the circulatory system.

The Respiratory System

It's estimated that the average person takes 12-20 breaths a minute, that's an average of 23,000 breaths a day[3]. Our lungs allow us to sustain life in the most unusual circumstances and we only get one set in a lifetime, therefore it's essential we look after them.

The respiratory system is made up of organs and tissue that when breathing in, allows oxygen into the body and when breathing out, removes carbon dioxide out of the body.

The lungs contain two primary bronchi, divided from the trachea or windpipe, referred to as the bronchial tree. The bronchi then split into smaller branches known as bronchioles which end in tiny balloon-like air sacs called alveoli. Alveoli is responsible for the primary function of the lungs where oxygen and carbon dioxide is exchanged with the circulatory system.

How Does the Respiratory System Clean the Air?

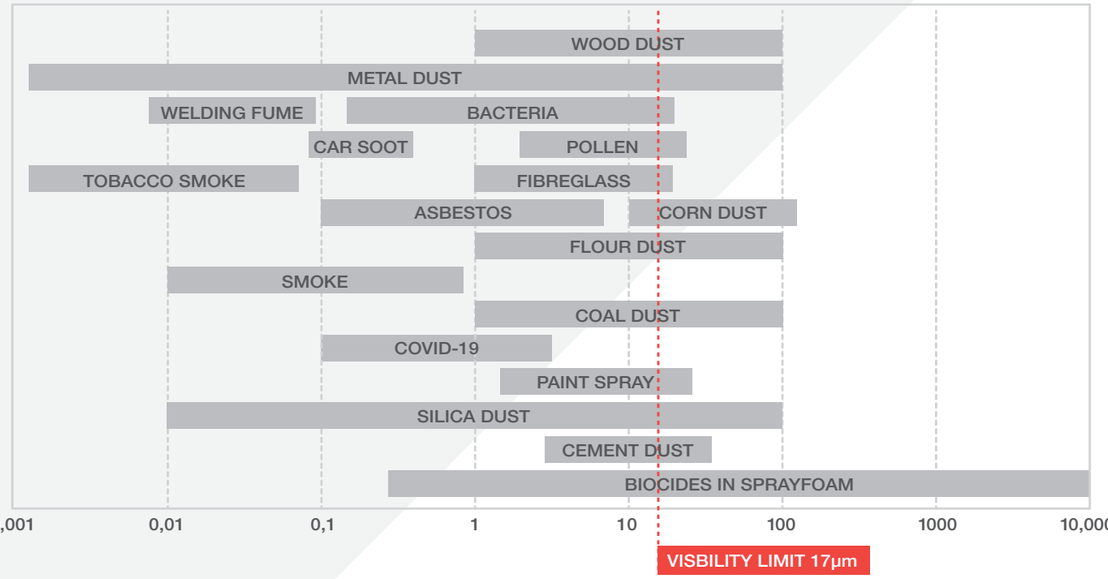
Because your lungs are so vulnerable, the respiratory system has some defence mechanisms to keep harmful things in the air from entering the body. Hairs in your nose help filter out large particles and can be cleared out by sneezing. Smaller hairs, called cilia, can be found in your air passage, and move from side to side to help keep the passage clean. Breathing in harmful substances, such as cigarette smoke can damage the cilia which can stop working and lead to health problems. Cells in the trachea and bronchial tubes also make mucus that keeps air passages moist to help keep the likes of dust, bacteria and viruses out of the lungs.

3. https://www.healthline.com/health/normal-respiratory-rate

What Are Particulates?

Particulates can come in the form of dusts, fibres, mists, aerosols, fumes and microfibres and are less than the width of a human hair in size. Particulate size is measured in micrometres or "microns" (µm) with one micron being 1/1000th of a millimetre.

Breathing in hazardous substances that have particles larger than 10 microns can be captured by the nose, throat and trachea. The body traps these with hair and mucus, clearing them by sneezing and coughing. However, particles smaller than 10 microns can pass directly into the lungs and bronchial tree, which is where damage to the respiratory system takes place and can be the start of developing respiratory illnesses.



Common particle examples include:

Dusts, Fibres and Fumes

Excessive exposure to hazardous solid particulates in the form of dusts, fibres and fumes in the workplace can create life-threatening respiratory problems. Breathing in hazardous substances such as welding fumes, flour or silica dust can all pose health risks if control measures are not correctly in place.

Mists and Sprays

Liquid particles (made up of small droplets) in the form of fine sprays, mists and aerosols can irritate the eyes, skin and respiratory system. Some substances can expose workers to more than one hazard, for example spray painting can cause respiratory diseases by breathing in paint mist but can also be caused from inhaling solvent vapours too.

Micro-organisms

Workers can be exposed to a variety of micro-organisms depending on the environment they work in. Depending on the type of micro-organism, whether a bacteria or virus, and what work is being done can vary the level of risk.

Gases and Vapours

Even smaller particles of less than 2.5 microns can pass into the areas of the lung in which oxygen is transferred. If we look at the micron scale, we find that these 10 micron and smaller particles are not even visible to the human eye and yet pose the greatest risk. This means you can't even see the hazard.

- Gases - a substance or matter in a state in which it will expand freely to fill the whole of a container, having no fixed shape (unlike a solid) and no fixed volume (unlike a liquid)
- Vapours - A substance diffused or suspended in the air; normally as a gas or extremely small drops of liquid that result from the heating or evaporation of a liquid or solid.

Understanding the different types of hazards in the workplace and identifying specific risks will enable you to implement control measures to protect your workers.

Impact of Respiratory Hazards

1.8 million workers suffer from new or long-standing work-related ill health in the UK[4]. When control measures in the workplace are not in place, regular exposure to hazardous substances can lead to a range of respiratory diseases. As a result of breathing in dusts, mists, fumes, gases or vapours, these diseases can be life altering or even life threatening depending on the type of contaminant inhaled, the length of time and severity of exposure.

Most respiratory diseases are long latency, meaning they start to develop years after the workplace exposure that caused or contributed to them, with only small volumes needed to cause major damage, especially when it comes to silica dust. Therefore, it's essential to understand the effects this type of exposure can cause and the importance of protecting against it in the workplace as much as possible.

Industry Related Respiratory Illnesses

Life-changing respiratory illnesses are caused, or developed over time, by breathing in hazardous substances that damage the lungs, within the workplace. Prior to Covid-19, harmful substances or environments were ranked the sixth cause of work-related injuries and illnesses involving days away from work[5]. In 2019/20 an estimated 2,012 full working days were lost due to breathing or lung problems caused or made worse in the workplace[6].

Every year approximately 12,000 workers die from lung diseases linked to past exposure at work and 19,000 new cases of breathing or lung problems were reported as being caused or made worse by work[7]. The most common respiratory illnesses such as chronic obstructive pulmonary disease (COPD), asthma and silicosis are affecting workers who have been exposed to hazardous substances. The main substances workers are exposed to include construction dusts such as wood, silica and mineral, grain and flour dusts, welding fumes and cadmium.

Chronic Obstructive Pulmonary Disease (COPD)

COPD or Chronic Obstructive Pulmonary Disease is the fourth leading cause of death throughout the world. Caused by breathing in certain dusts, fumes or gases, 15% of COPD cases are developed or made worse by work[8].

COPD is a slow developing condition and encompasses long-term illnesses including chronic bronchitis and emphysema, that make it difficult to breathe. COPD accounts for 34% of occupational respiratory disease deaths each year[7].

Asthmas in the workplace

Asthma is a common lung condition that over 12% of the UK's population has been diagnosed with. Whilst a minor nuisance for some, 5.4 million people receive treatment for asthma[9]. It can develop or worsen when exposed to substances in the workplace. Breathing in harmful dusts, gases and fumes can irritate the airways of individuals with pre-existing asthma making the condition worse - this is known as work-related asthma.

Occupational asthma is an allergic reaction that can occur when exposed to substances such as flour or wood dust. These substances known as respiratory sensitisers can cause a change in people's airways, known as the 'hypersensitive state'. Once the lungs have become hypersensitive, further exposure to the substance can trigger an asthma attack.

Silicosis

Silicosis is an irreversible lung disease caused by exposure to respirable crystalline silica (RCS) over a long period and can take up to ten years between the exposure and onset of the disease.

Workers with silicosis are at an increased risk of tuberculosis, kidney disease and arthritis and it is one of the major causes of occupational cancer and COPD. Found in stone, rock, sand and clay, RCS is inhaled by workers participating in tasks that include sandblasting, mining, rock drilling, brick cutting, glass manufacturing, stone working, ceramic manufacturing and construction activities. The HSE estimates that exposure to RCS was responsible for the death of over 500 construction workers in 2005[10].

4. https://www.hse.gov.uk/statistics/causdis/index.htm
5. https://injuryfacts.nsc.org/work/safety-topics/exposure-to-harmful-substances-or-environments/
6. https://www.hse.gov.uk/aboutus/occupational-disease/respiratory-disease.htm
7. https://www.hse.gov.uk/statistics/causdis/respiratory-diseases.pdf
8. https://www.hse.gov.uk/copd/aboutus.htm
9. https://statistics.blf.org.uk/asthma
10. https://www.hse.gov.uk/cancer/research.htm

*Image does not reflect best practice or correct protection

Managing the Risks

Managing risk is key to safety in any work environment. Understanding, assessing and managing hazardous substances, from air monitoring to PPE, means creating a safe space to work as well as complying with health and safety law.

Understanding the Risks

Prior to prescribing the appropriate respiratory protective equipment (RPE), it's important to manage hazardous substances and first consider whether they can be reduced or controlled. Identifying materials which may create airborne dusts, toxic gases or harmful fumes should be part of a risk assessment so appropriate control measures can be implemented to mitigate these potential hazards and protect employees from respiratory diseases.

Identifying and Assessing the Risk

Firstly, identifying the hazardous materials and substances used within the workplace will help determine the control measures that must be in place before the substance is used. Material safety datasheets (MSDs) contain information about the substances that make them up, its uses, hazard identification and human health risks as well as advice on exposure controls and personal protection.

Before carrying out any work, a risk assessment should identify any risks involved and the types of control measures that should be adopted.

Secondly determine who could potentially be affected. Consideration should be given to whether the public or other people who work or live in or around the space may be affected.

Other things to consider:

- What the task involves, including equipment and tools
- The environment / work area
- How long the task will take
- Frequency of the task throughout the day.

Employers have a responsibility to take reasonable steps to prevent harm coming to anyone in and around the workplace. The person conducting the risk assessment also needs to be trained and competent to do so.

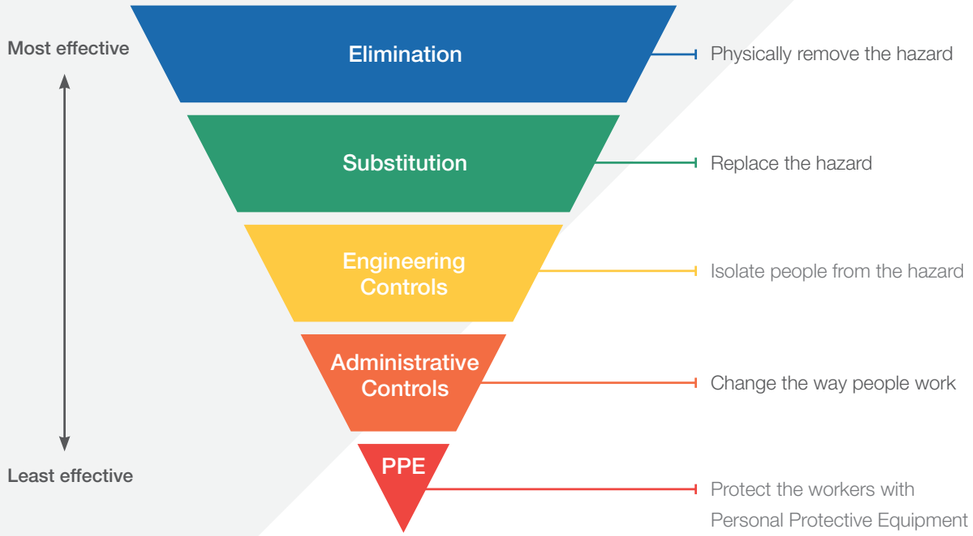
Controlling the Risks

Once the hazard has been recognised, reasonably practicable control measures must be developed depending on the risk and applied to each task to ensure the health and safety of your employees and those around.

1. Eliminate the use of harmful substances and remove the hazard in its entirety
2. Consider substitution and using a safer material. MSDs will highlight the content which may help you come up with an alternative
3. Use engineering controls that work to isolate or reduce exposure of the substance such as less powerful tools, introducing water or bringing in on-tool dust extraction
4. Ensure there are a set of administrative controls and that employees are competent to use the control measures put in place. Relevant training and shift rotation can help reduce workers' exposure to hazardous substances
5. If these methods do not prevent or control the exposure, PPE in form of Respiratory Protective Equipment (RPE) will need to be issued.

As a priority, before the work commences, you will need to identify whether the proliferation of airborne substances can be controlled or even prevented altogether. In accordance with good occupational hygiene practice, the risk assessor should adopt the hierarchy of control to reduce the risk.

Hierarchy of Controls



Ways of Working

Managing hazardous substances can also be achieved by the way a business works through its operating procedures, supervision and training. It can also include an organisations' emergency procedures, decontamination and permits to work for tasks such as maintenance.

The right combination of equipment and ways of working is crucial for reducing exposure and controlling the risk. However, unless used properly, control measures will not work. That's why it is important for your workers to:

- Wear any necessary PPE
- Use control equipment
- Follow hygiene procedures
- Warn supervisors if anything appears to be wrong

By testing these control measures and equipment on a regular basis makes sure that they work properly. Keeping records of examinations and repairs for at least five years can help to identify any trends or variations in equipment deterioration. The right combination of equipment and ways of working is crucial for reducing exposure. If not used properly, these control measures will not work.

Our Respiratory Offer

We are a market leader in the provision of respiratory management services, including:

Respiratory Consultancy

- COSHH assessments
- Workplace air monitoring
- Local exhaust ventilation (LEV) expertise

Respiratory Services

- Respiratory management programme implementation
- Face fit testing
- Air purity testing
- Lung function testing
- Asset management

Respiratory Training

- RPE training
- Face fit testing training

Respiratory Protective Equipment (RPE)

- RPE sales
- RPE hire
- RPE inspection, maintenance & servicing

Our Respiratory Team

Our respiratory management team are highly experienced and have a wealth of knowledge and expertise. They work with clients operating across a diverse range of sectors and therefore can share insights and best practice with your people based on their experience.

We have one of the largest teams of mobile RPE technicians, available to undertake BSIF Fit2Fit qualified face fit testing across the UK.

We offer **national face fit testing coverage,** our respiratory technicians ensure consistency in testing across multi-site organisations, using the latest Portacount technology, at a location to suit.

Our respiratory team works closely with industry bodies including the British Safety Industry Federation (BSIF) and Health and Safety Executive (HSE) to promote best practice and to increase the awareness of face fit testing.

We have a Fit2Fit mentor programme to support customers who want to test their own teams.

We have one of the largest UK teams available to undertake BSIF Fit2Fit qualified face fit testing

Respiratory Consultancy

As an employer you should look to eliminate exposure to hazardous substances. We can offer risk assessment guidance and support businesses to identify workplace hazards and implement practical measures to eliminate or reduce them.

This includes control of hazardous substances to health (COSHH) assessments, workplace air monitoring and local exhaust ventilation (LEV) solutions.

COSHH Assessments

Businesses that use or create hazardous substances, are required to complete a COSHH assessment under COSHH regulations. A COSHH assessment is a type of risk assessment that concentrates on the hazards and risks from hazardous substances in your workplace.

We can arrange for a comprehensive COSHH assessment to be undertaken at your site. This will help you:

- Identify the inherent hazards of the substance
- Evaluate the risks in using the substance in a particular process or processes
- Determine the required control measures
- Inform users and any others who may be affected by the control measures.

Workplace Air Monitoring

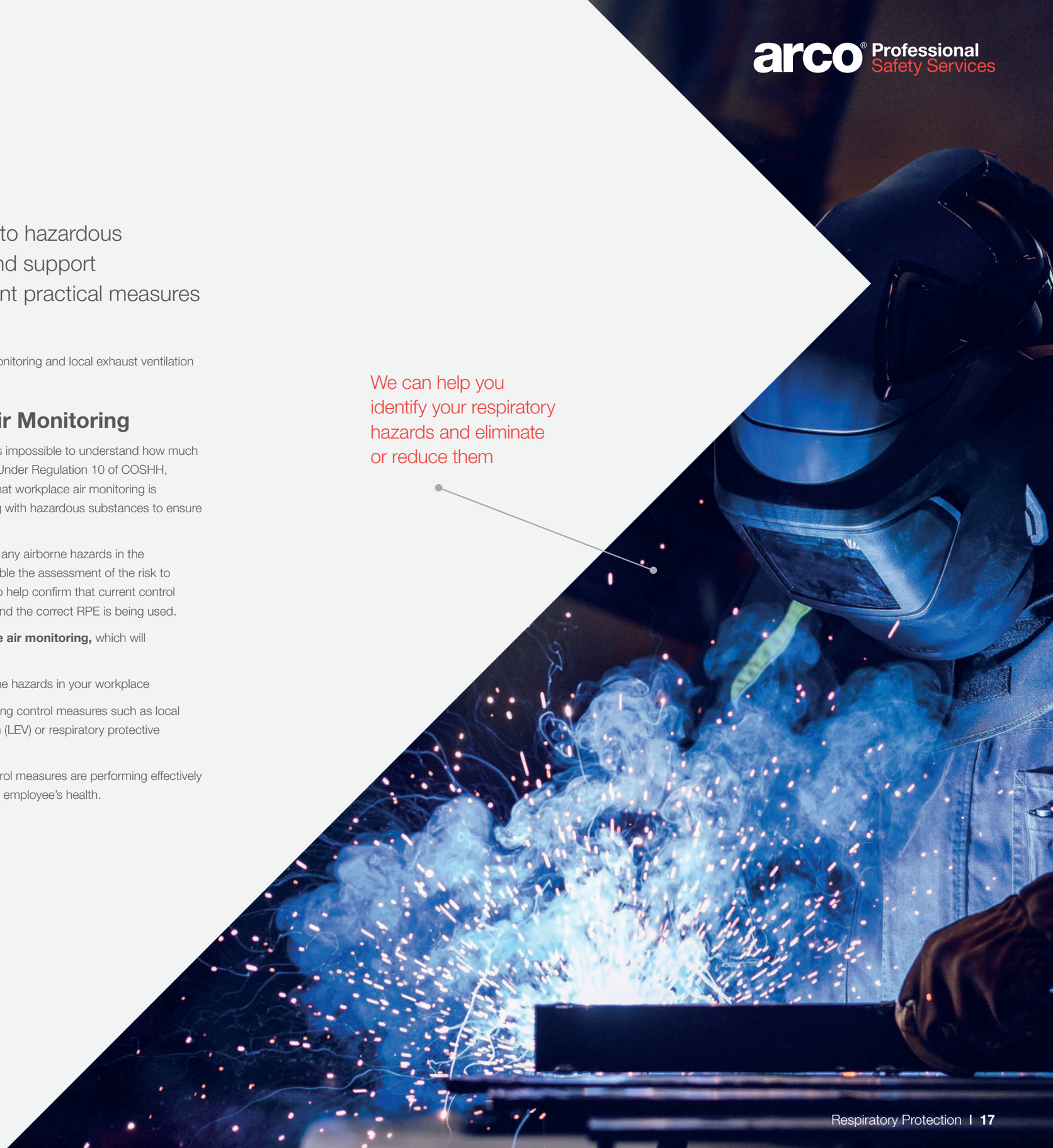
Without air monitoring it is impossible to understand how much contaminant is in the air. Under Regulation 10 of COSHH, employers must ensure that workplace air monitoring is undertaken when working with hazardous substances to ensure adequate control.

Air monitoring will identify any airborne hazards in the workplace, which will enable the assessment of the risk to workers' health. It will also help confirm that current control measures are adequate and the correct RPE is being used.

We can offer workplace air monitoring, which will help you to:

- Identify the airborne hazards in your workplace
- Consider introducing control measures such as local exhaust ventilation (LEV) or respiratory protective equipment (RPE)
- Ensure those control measures are performing effectively and are protecting employee's health.

We can help you identify your respiratory hazards and eliminate or reduce them



Local Exhaust Ventilation (LEV)

Local Exhaust Ventilation (LEV) systems are an effective engineering control that can help reduce workers' exposure to hazardous airborne pollutants right at the source, by capturing and transporting them away to a safe emission point or to a filter/scrubber – protecting everyone in the workspace.

LEV Equipment

A typical LEV system will have:

- **Hood(s)** - to collect airborne contaminants at, or near, where they are created (the source).
- **Ducts** – to carry the airborne contaminants away from the process.
- **Air Cleaner** – to filter and clean the extracted air.
- **Fan** – which must be the right size and type to deliver sufficient 'suck' to the hood.
- **Discharge** – for safe release of cleaned, extracted air into the atmosphere.
- **Collection Bin** – dislodged dusts from the filter falls into a collection bin which, when full, is to be taken away and emptied.

The LEV system chosen should be fit for purpose and capable of adequately controlling exposure.

Correct Product Selection

Buying the right LEV equipment is a critical step. Some employers buy LEV equipment to find that it doesn't work. That's because the wrong type has been purchased or because it hasn't been installed or maintained properly.

We partner with leading LEV manufacturers and installation teams and through our site surveys, we can recommend the best product solutions tailored to your workplace and application needs.

Advice and Support

To help you comply to health and safety law, we offer:

- **Site surveys** – to ensure you have the right LEV solution for your workplace and application.
- **Training** – to ensure that operatives learn how LEV works and how to use it properly. Training records must be kept up to date to show this.
- **Service and Maintenance** – to ensure your LEV equipment is in good working order and provides the necessary protection, including a 14-monthly Thorough Examination and Test (TExT) Report to comply to COSHH Regulation 9.

For more information contact us on **01482 383288** or email **hose.support@arco.co.uk**.

Respiratory Services

Where it is not possible to eliminate exposure to hazardous substances, potential exposure should be prevented and controlled to minimise impacts on the workforce.

Thanks to our joined-up approach to safety, we are uniquely placed to provide services for environments where there's a combined risk from respiratory, working at height and in confined spaces.

Our specialist respiratory services include:

- Respiratory management programme implementation
- Face fit testing
- Air purity testing
- Lung function testing
- Asset management

Respiratory Management Programme Implementation

Respiratory protective equipment (RPE) is widely selected as a protection measure after the hierarchy of controls have been followed and the hazard remains. It is therefore essential that an effective Respiratory Management Programme is implemented to help protect people at work.

There are six key elements to implementing an effective Respiratory Management Programme:

1. Correct RPE Selection

Employers should ensure their employees are issued with adequate RPE to control the hazards relating to their tasks and unique working environment.

We can support you in selecting the right products for your needs.

2. Respiratory Training

Not only should employees be issued with correct RPE but they should be correctly trained in wearing and using it.

We can advise you on the training your employees require, whether that's a tailor-made learning package or one of our standard courses.

3. Face Fit Testing

Wearers of tight-fitting RPE must receive face fit testing from competent Fit2Fit qualified specialists, to ensure it fits correctly and achieves the tight seal required to provide protection.

Our team of Fit2Fit technicians can carry out face fit testing throughout the UK and deliver training courses on qualitative and quantitative face fit testing.

4. RPE Inspection & Maintenance

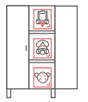
Poorly maintained respiratory equipment may not offer the assumed level of protection to the wearer, so workers need to be trained how to correctly use and wear it, how to clean and maintain it to industry standards, and when it should be replaced.

We can train you to conduct your own monthly COSHH inspections or undertake them for you as part of our managed services package. We carry out required manufacturer's servicing to ensure your equipment is maintained correctly to provide adequate protection.

5. Record Keeping

You should ensure valid records are kept for five years and available for inspection if required.

Our Customer Asset Tracking (CAT) system and managed services offer give you peace of mind that your employee training requirements are managed, your equipment inspections are scheduled and compliance records are fully up to date with legislation.



6. Suitable and Sufficient Storage of RPE

When storing your RPE ensure it is kept clean, can be easily accessed and is not exposed to potentially damaging conditions.

Store your RPE in a dry place and avoid storing with other items such as consumables or machinery.

We can support you to develop a fully compliant respiratory management programme or plug the gaps in your existing processes.

Face Fit Testing

Face fit testing is a simple assessment, undertaken by a competent person, that checks whether a person's mask fits their face shape and size and whether it provides an adequate seal to the face.

The performance of a face mask is directly correlated to having a good seal with the face. A mask that doesn't fit well will not provide the required performance and leave the wearer exposed and vulnerable to immediate or long-term ill health.

One mask will not protect everyone; different hazards require different masks and/or filters, and everyone has a different face shape, so selection should be based on each individual.

Legal responsibilities

As an employer you have a legal responsibility under the Health and Safety at Work etc. Act 1974 and the Management of Health and Safety at Work Regulations 1999 to provide and maintain a safe working environment for your employees as far as reasonably practicable.

This means that RPE must be suitable for its purpose and protect the wearer from hazards. The following regulations stipulate that fit testing should be carried out as part of the initial mask selection process:

- Control of Substances Hazardous to Health (COSHH) Regulations 2002
- Control of Lead at Work (CLAW) Regulations 2012
- Control of Asbestos (CAR) Regulations 2002
- Ionising Radiation Regulations 2017
- Confined Space Regulations 1997

Employers should also consider whether any of these regulations are applicable to their RPE and comply with those that are relevant. Companies that don't face fit test can be prosecuted by the health and safety executive (HSE), unless it can be proven that their procedures meet or exceed the face fit testing protocol laid down in the HSE guidance.

Further guidance on RPE face fit testing can be found in the Health and Safety Executive (HSE) INDG479 document[11].

Face fit testing requirements

Anyone wearing tight-fitting respiratory protective equipment (RPE) as a control measure, must have a face fit test for each variety of mask they wear, to ensure it fits correctly and achieves the tight seal required to provide protection.

Face fit testing should be undertaken:

- At mask selection stage
- Every two years or sooner depending on the risks
- If the wearers facial features change (e.g. excessive weight changes, major dentistry work or other facial changes)
- If switching to a new mask manufacturer or model.

It is good practice for companies to have a system in place to do face fit testing reviews periodically. The British Safety Industry Federation (BSIF) recommends two years as a suitable interval for repeat testing, or more frequent depending on the level of risk.

In addition, to check whether a facepiece is being correctly donned, a seal check should be carried out by the wearer each time a fit-tested facepiece is worn and before entering a hazardous environment.

11. Health and Safety Executive (HSE) INDG479 document: https://www.hse.gov.uk/pubns/indg479.htm

RPE that requires face fit testing

Face fit testing is required for all the following types of tight-fitting face masks:

- Disposable half masks
- Re-usable filter or cartridge half masks
- Full face filter or cartridge masks
- Powered respirators
- Escape set masks
- Full breathing apparatus masks (including positive pressure)
- Escape set masks.

A record should be kept of each face fit test and should clearly state the make, model and size of the mask tested. Records should be valid and always available for inspection if required.

Remember: To provide effective protection, wearers of tight-fitting RPE must be clean shaven.

BSIF Fit2Fit accreditation scheme

Face fit testing should only be carried out by a competent person. Competency can be proven by gaining qualification from the British Safety Industry Federation (BSIF) Fit2Fit accreditation scheme. This scheme was established by the BSIF, working with the HSE and other industry stakeholders and while it is not compulsory to follow this scheme, by doing so you are demonstrating best practice.

By choosing a Fit2Fit qualified face fit tester you can be confident the tester has completed and met the criteria required to be deemed competent in face fit testing. A full list of qualified testers can be found on the BSIF Fit2Fit website[12].

12. BSIF Fit2Fit Website: https://www.fit2fit.org/

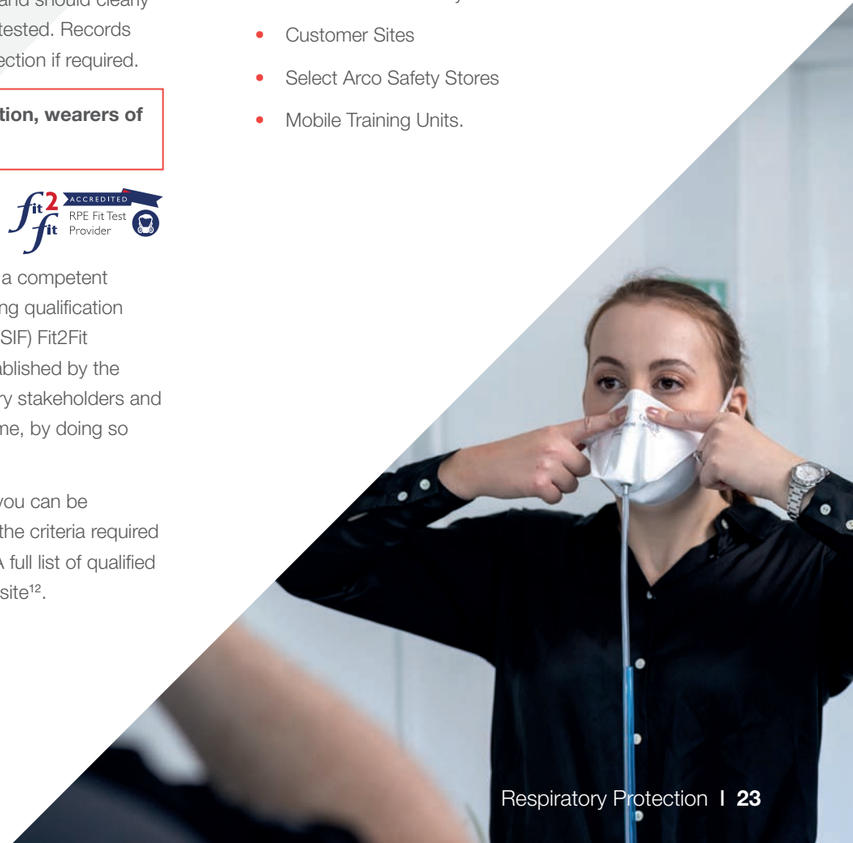
Our face fit testing services

We conduct two types of face fit testing; qualitative and quantitative. Qualitative testing can only be used for disposable and half face masks, and quantitative testing can be used for all tight-fitting respirators, including disposable, half mask and full face masks.

We have one of the largest teams of mobile RPE technicians available to undertake BSIF Fit2Fit qualified face fit testing across the UK.

Undertaking face fit testing at your organisation's site is the most efficient way to face fit test large numbers of people as it dramatically reduces the employee down time involved. However, testing can be conducted at:

- One of our UK Safety Centres
- Customer Sites
- Select Arco Safety Stores
- Mobile Training Units.



Air Purity Testing

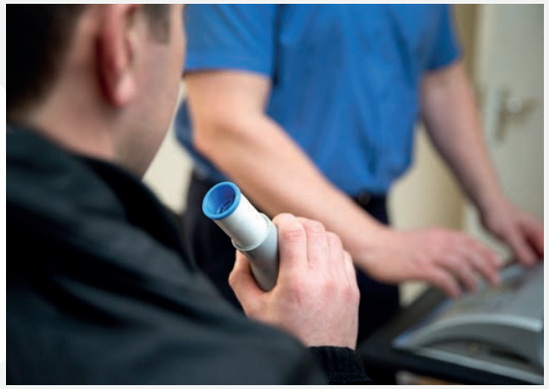
It's a legal obligation for employers to test compressed air quality for contaminants. They have a duty of care to their employees to ensure that the breathing air they are supplied with is adequate for the respiratory protective devices (RPD) they are using and safe to breathe.

We can undertake a risk assessment to identify any causes of potential air contamination in your airlines or any compressor intakes and dependent on risk, determine a suitable frequency of testing.

If you are using airline respiratory equipment from a compressor, we can:

- Carry out the required BS EN 12021 tests to ensure your air quality is free from contamination and meets the required standard
- Check for oxygen, water, carbon dioxide, carbon monoxide, oil and any other contamination using Fourier Transform InfraRed (FTIR) testing
- Provide accurate results which can be used as a permanent record
- Undertake an investigation into contaminant source, identifying it from a spectral library of 300+ commonly found contaminants and recommend corrective action.

For more information contact us on **0330 390 0822** or **info@arcoservices.co.uk.**



Lung Function Testing

We have partnered with a specialist national occupational health provider to offer a standalone respiratory assessment to test how well your workers lungs work. This assessment can help diagnose and monitor certain lung conditions such as asthma and chronic obstructive pulmonary disease (COPD) among others.

Conducted by a medical specialist, the assessment includes a standard medical questionnaire and checks alongside a full spirometry. Using a device called a spirometer (a small machine attached to a mouthpiece by a cable) the test works by measuring how much air you can inhale and exhale and how quickly you can exhale.

The respiratory assessment can be conducted either at a local clinic or your site and a fitness certificate advising of the results is issued on completion. Lung function testing of employees is a practical measure that you can implement to support a wider respiratory management programme.

To enquire about this assessment contact us on **0330 390 0822** or **salesteam@arcoservices.co.uk**.

Asset Tracking

Managing employee's safety training, medicals and equipment inspections can be time consuming and costly. Utilising our extensive experience, we have developed an online **Customer Asset Tracking (CAT)** platform that captures all your safety critical information. **All in one place. 24/7**.

This innovative digital solution offers the ability to view and download:

- Employee safety training and medical records, including certificates and dates
- Inspection and servicing history of safety critical equipment and inspection due dates.

It also automatically identifies upcoming records that require your attention. CAT allows you to centralise and simplify much of the administration associated with managing safety critical equipment and assets.

Managed Services

If you wish to outsource the complete administration and management of safety critical equipment, assets and certificates, our Managed Services team can take care of it for you.

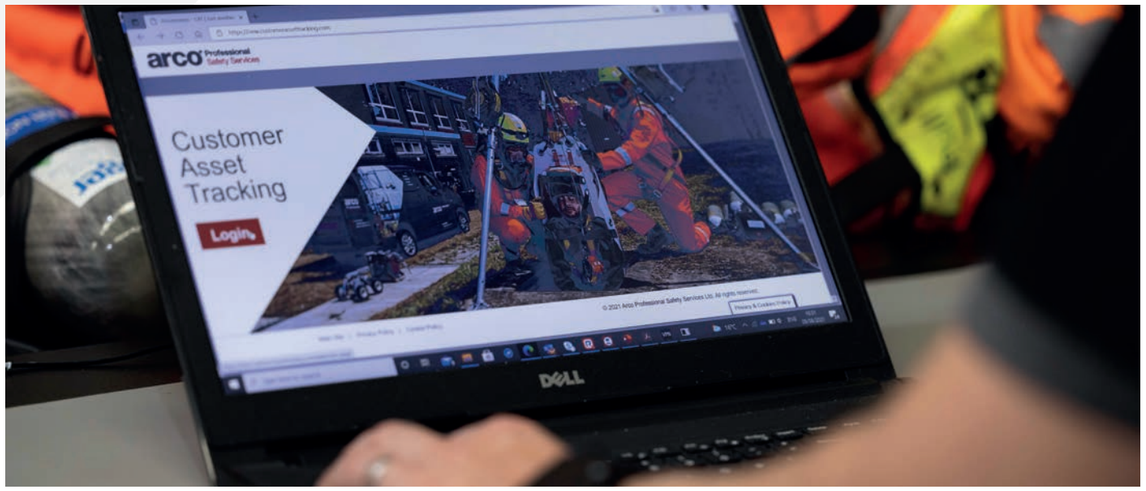
Our dedicated team can take care of all this for you including all relevant certification, giving you peace of mind that:

- Employee training requirements are managed
- Equipment inspections are scheduled
- Compliance records are fully up to date with legislation.

There are three levels of service available with increasing features and benefits, depending on the level of control you wish to have and giving you a choice based on your individual needs.

Silver Gold Platinum

For more detailed information on all the features and benefits of each level and to determine which one is right for you visit **https://www.arcoservices.co.uk/services/managed-services.**



Respiratory Training

Given the long latency of work-related respiratory illnesses, it's important that workers understand the risks and are properly trained.

Alongside respiratory training, our expert technicians also help customers implement an effective Respiratory Management Programme. This detailed respiratory knowledge and understanding ideally places them to offer the best training experience possible.

Our expert trainers can work with you to understand your training needs and create a tailor-made learning package, or you can choose from our range of off-the-shelf courses.

We offer a comprehensive range of respiratory protective equipment training and can teach your people the skills they need to be able to deliver face fit testing. Courses include the following selection:

Face fit testing training

- Qualitative Face Fit Test Training
- Quantitative Face Fit Test Training
- Quantitative Face Fit Test Training – Refresher

Respiratory protective equipment (RPE) training

- Disposable Face Mask User Training
- Half Face Mask User Training
- Full Face Mask User Training
- Powered Respirator Training
- Airline Respirator Training
- Airline Trolley Training
- Escape Breathing Apparatus Training
- Self Contained Breathing Apparatus User

Face Fit Testing Training

Our Fit2Fit qualified respiratory technicians can deliver qualitative and quantitative face fit training courses to provide your employees with the knowledge needed to undertake face fit testing.

We can also deliver ongoing coaching to help them achieve their Fit2Fit qualification. These training courses cover the information detailed within the HSE guidance on RPE fit testing. Completing the courses will assist candidates who wish to complete the Fit2Fit qualification with the British Safety Industry Federation (BSIF).

Qualitative Face Fit Test Training

Course Overview

This course provides delegates with the knowledge and training required to perform and carry out Qualitative Face Fit Testing of disposable and half face masks.

Duration	Validity	Locations	Max Delegates
1 Day	3 Years	Linlithgow, Manchester, Warrington, Stafford, Bracknell, Client Site	8

Quantitative Face Fit Training

Course Overview

This course provides delegates with the knowledge and training required to carry out Quantitative Face Fit Testing for all tight-fitting respirators, including disposables, half masks and full face masks, using a Portacount machine.

Duration	Validity	Locations	Max Delegates
3 Days	3 Years	Linlithgow, Manchester, Warrington, Stafford, Bracknell, Client Site	4

Quantitative Face Fit Training – Refresher

Course Overview

This course provides delegates with a refresher on the knowledge and training required to carry out Quantitative Face Fit Testing for all tight-fitting respirators, using a Portacount machine.

Duration	Validity	Locations	Max Delegates
1 Day	3 Years	Linlithgow, Manchester, Warrington, Stafford, Bracknell, Client Site	4

RPE Training

Our training team offer a range of off-the-shelf respiratory equipment training courses. These offer:

- Guidance in selecting the correct equipment based on your hazards and environment
- Support in its correct use
- Advice on storage and maintenance in accordance with manufacturer and legislative requirements.

Disposable Face Mask User Training

Course Overview

This course is aimed at all people involved in the selection, wearing, storage of disposable masks (filtering face pieces).

Duration	Validity	Locations	Max Delegates
1 Hour	3 Years	Linlithgow, Manchester, Warrington, Stafford, Bracknell, Client Site	10

Half Face Mask User Training

Course Overview

This course provides training for people involved in the selection, wearing and storage of half mask respirators.

Duration	Validity	Locations	Max Delegates
2 Hours	3 Years	Linlithgow, Manchester, Warrington, Stafford, Bracknell, Client Site	10

Full Face Mask User Training

Course Overview

This course provides training for people involved in the selection, wearing, storage and maintenance of full face mask respirators.

Duration	Validity	Locations	Max Delegates
3 Hours	3 Years	Linlithgow, Manchester, Warrington, Stafford, Bracknell, Client Site	10

Powered Respiratory Training

Course Overview

This course provides delegates with the knowledge and training required in the selection, wearing, storage and maintenance of powered respirators.

Duration	Validity	Locations	Max Delegates
3 Hours	3 Years	Linlithgow, Manchester, Warrington, Stafford, Bracknell, Client Site	10

Airline Respirator Training

Course Overview

Aimed at all people involved in the selection, wearing, storage and maintenance of airline respirators this training delivers the knowledge, understanding and skills to work with this equipment.

Duration	Validity	Locations	Max Delegates
3 Hours	3 Years	Linlithgow, Manchester, Warrington, Stafford, Bracknell, Client Site	10

Airline Trolley Training

Course Overview

This course is aimed at those who will be required to wear breathing apparatus to an industrial standard whilst utilising an airline trolley system (this does not include search and rescue).

Duration	Validity	Locations	Max Delegates
3 Hours	3 Years	Linlithgow, Manchester, Warrington, Stafford, Bracknell, Client Site	10

Escape Breathing Apparatus Training

Course Overview

Aimed at all people involved in the selection, wearing, storage and maintenance of escape respirators this training delivers the knowledge, understanding and skills to work with this equipment.

Duration	Validity	Locations	Max Delegates
3 Hours	3 Years	Linlithgow, Manchester, Warrington, Stafford, Bracknell, Client Site	10

Self Contained Breathing Apparatus User

Course Overview

This specialist breathing apparatus training will equip those entering and working in hazardous atmospheres with an understanding of the necessary skills and competencies to work safely where the hazards are prevalent. It provides training in the use of the equipment in line with the relevant manufacturer's instructions.

Refresher course and requalification is available for this course.

Duration	Validity	Locations	Max Delegates
1 Day	3 Years	Linlithgow, Manchester, Warrington, Stafford, Bracknell, Client Site	8

For more information on our training courses contact us on **0330 390 0822** or **training@arcoservices.co.uk**.

Respiratory Protective Equipment (RPE)

RPE is a key protective measure when it comes to defending employees from hazardous substances. It can prevent even some of the most pervasive chemicals, vapours and dusts getting in and causing long-term health issues for workers.

Equipment Sales

It is important to ensure you have the right RPE and are using it in the right way.

RPE Selection

RPE is available in a range of different styles. One size does not fit all - everyone has a different face shape and depending on gender, ethnicity, build and facial features will determine the RPE that best fits the individual. To ensure the wearer is protected, RPE must be both **adequate** for the specific risk and **suitable** for the wearer as well as the task and environment.

RPE Products

We offer a wide range of RPE from a national network of respiratory suppliers, with representation from leading brands.

And we have specialist technical support to offer unbiased advice on product selection to ensure you get the best solution to provide suitable and adequate protection. Our core products include:

- **Disposable Masks**
  Widely used, disposable masks are fit for single use and available with different protection factors depending on what level of protection is required. They offer particulate protection only and are available in three classes: FFP1, FFP2 or FFP3.

- **Reusable Masks**
  There are two types of reusable masks: half masks and full-face masks. Both cover the nose, mouth and chin, while the full-face masks also cover the eyes. For both masks, oxygen is drawn in through the inhalation valve, through a filter, into the mask. When breathing out, an inlet valve then closes and an exhalation valve opens to allow exhaled air to escape the atmosphere.

- **Powered Air Purifying Respirator (PAPR)**
  Powered air systems provide extensive protection from hazardous airborne substances, creating an air flow inside either a tight-fitting facepiece or loose-fitting hood. Tight-fitting masks rely on having a good seal with the wearer's face and therefore cannot be worn with facial hair. Loose-fitting facepieces such as hoods and visors rely on enough clean air filling the headtop to prevent contaminant leaking in.

Remember: Anyone wearing tight-fitting RPE is required to have a face fit test.

Browse our range of RPE at **www.arco.co.uk** or contact us for more information.

RPE Hire

The technicians at our hire and service centres can offer expert advice, helping you to choose the best kit for your operatives and environment.

We offer:

- **A comprehensive range** - Full selection of kit to hire, including the most current technologies from leading suppliers, so you have the best kit specific to your requirements.
- **Flexible and standard hire contracts** - Contracts are based on a minimum hire period of one week and can be extended to suit your requirements, up to five years. Choose a contract that offers your team access to maintained and serviced kit, when they need it. Respiratory equipment for hire includes Portacount machines, gas detectors, breathing apparatus and powered respirators.
- **Contract hire** - Offered for longer terms of up to five-years. Contract hire also includes servicing and maintenance of equipment. Kit is taken away and replaced immediately with fit for use equivalents, allowing your team continual access to reliable equipment without the worry of costs and time of servicing.

For more information on our equipment services contact us on **0330 390 0822** or **info@arcoservices.co.uk**.

RPE Inspection, Maintenance and Servicing

To ensure respiratory protective equipment (RPE) continues to provide the assumed protection for employees, it must be subject to thorough inspection and maintenance.

According to the Control of Substances Hazardous to Health (COSHH) Regulations 2012, inspection should be undertaken regularly by a competent person, generally monthly, but no less frequent than three-monthly. Inspection records should also be kept for a minimum of five years to ensure you remain compliant.

Poorly maintained respiratory equipment may not offer the assumed level of protection to the wearer, for several reasons, including:

- Worn by untrained wearer
- Wearing damaged respirators
- Respirators not regularly checked by a competent person
  - Before use
  - During monthly COSHH inspection
- Not being maintained as per manufacturers requirements
- Poor cleaning regimes
- Inadequate storage facilities
- Lack of required record keeping.

Our expert technicians can inspect, service and maintain your respiratory equipment, including:

- RPE servicing and maintenance including powered respirators, breathing apparatus and escape sets
- Formal (COSHH) inspections of powered respirators and full face masks
- Gas detection servicing and calibrations
- Breathing apparatus cylinder refills
- Air purity testing.

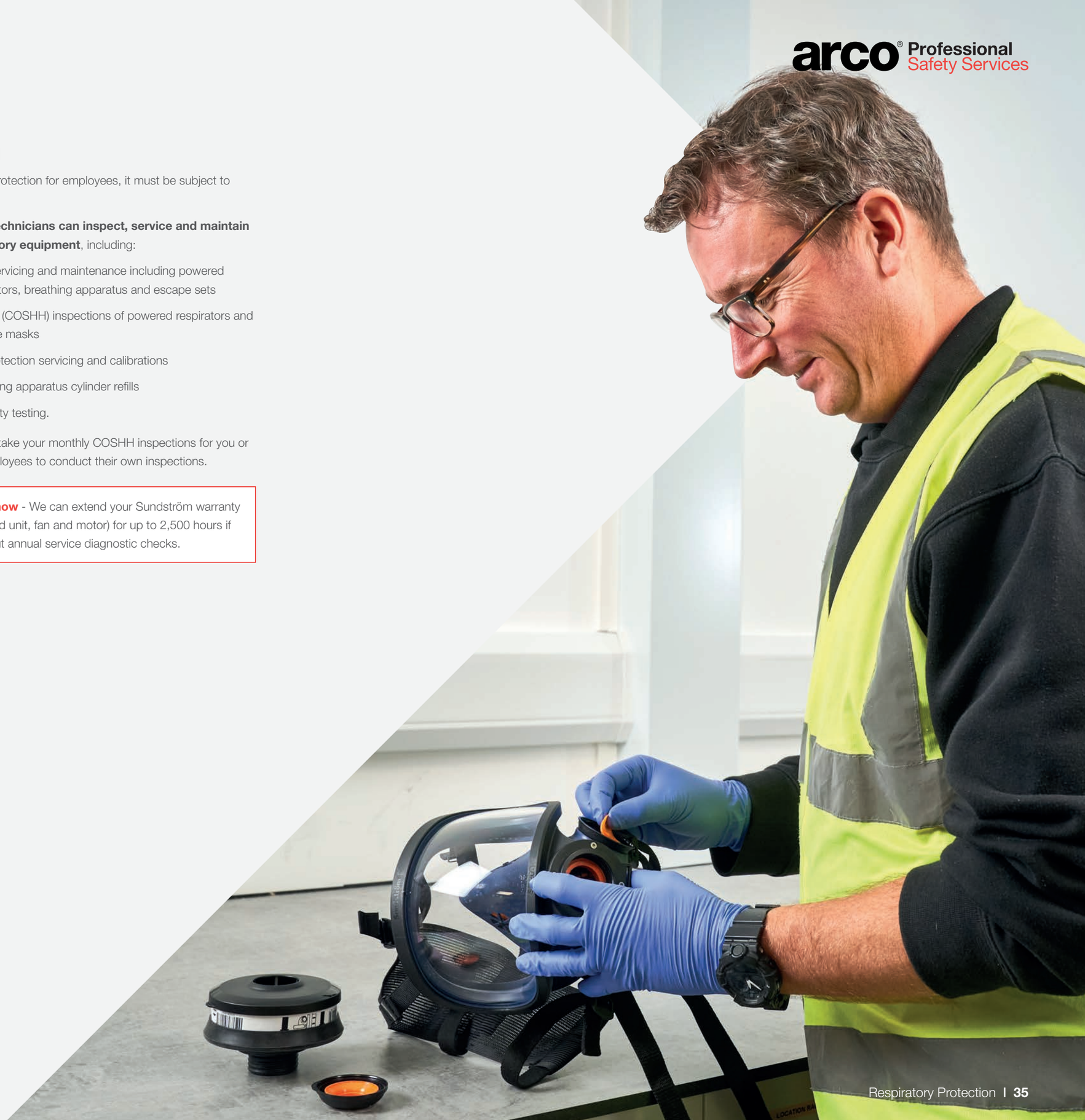
We can undertake your monthly COSHH inspections for you or train your employees to conduct their own inspections.

Did you know - We can extend your Sundström warranty (for powered unit, fan and motor) for up to 2,500 hours if we carry out annual service diagnostic checks.

Equipment Service Centres

Our equipment service centres are accredited to deliver inspection, maintenance and servicing for the majority of leading respiratory product manufacturers.
They are located in:

- Linlithgow
- Stafford
- Warrington
- Bracknell



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Key:

- T Training Facility
- H Hire
- S Services and Maintenance

Contact us

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