

Confined Space

Expert Advice,
Training, Consultancy,
Support Services
and Equipment



arco[®] Professional
Safety Services

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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.

Confined Space Working

Working in confined spaces is an often-misunderstood area of safety. These environments could mean exposure to:

- Fire or explosion
- Increase in body temperature
- Gases, fumes, vapours or lack of oxygen
- Increase in the level of a liquid
- Free-flowing solids

In order to work safely in confined spaces, it requires a thorough understanding of the hazards that may be present and how to manage the risks.

Arco Professional Safety Services is a market leader in the provision of confined space safety solutions. These solutions include training, consultancy and advice, site support services such as rescue teams, inspections, survey and mapping and cleaning, and equipment sale, hire and maintenance.

Working safely in confined spaces requires an understanding of the hazards and managing the risks



Legislation

The Confined Space Regulations 1997 defines a confined space as a place which is substantially (though not always entirely) enclosed and there is a reasonably foreseeable specified risk.

UK Legislation

The basis of British health and safety law is the Health and Safety at Work etc. Act 1974 (HSWA). The Act sets out the general duties which employers have towards employees and members of the public, and employees have to themselves and to each other.

In the UK the Confined Space Regulations 1997 is the legislation that specifically relates to the identification and management of confined space working and the regulations are published with an accompanying Guidance and Approved Code of Practice (ACOP) (HSE L101).

The Management of Health and Safety at Work Regulations 1999 (the Management Regulations) in general make more explicit what employers are required to do to manage under HSWA, and they apply to every work activity.

The PPE Regulation (EU) 2016/425 and the Control of Substances Hazardous to Health state: The risk to health and safety should be assessed on how to prevent or reduce the workers exposure to hazardous conditions and substances.

The Personal Protective Equipment Guidance HSG53 stipulate that Personal Protective Equipment (PPE) and Respiratory Protective Equipment (RPE) is to be supplied and used at work wherever there are risks to health and safety that cannot be adequately controlled in other ways.

Other legislation may also be relevant depending on the activities being carried out regarding confined space working, such as working at height, hazardous substances, manual handling, electricity, asbestos, radiation, lifting operations, noise and vibration. Personal protective clothing and equipment along with respiratory protective equipment may be specified and used in confined spaces and this will mean the relevant regulations surrounding the supply, maintenance and training will also have to be considered.

Ireland Legislation

The Safety, Health and Welfare at Work (Confined Spaces) Regulations 2001 and the Code of Practice for Working in Confined Spaces cover all work in relation to confined spaces.

The code of practice is based very closely on the Approved Code of Practice issued by the Health and Safety Commission in Great Britain and as such the same core principles apply.

The regulations and ACOPs for Ireland state:

- A person shall not carry out work in Confined Spaces if it is reasonably practical that it could be avoided
- If the work must be carried out Hazard Identification and Risk Assessment must be carried out prior to the work commencing
- A person shall not enter a confined space unless there is a system of work in place that has been planned, organised, performed and maintained so as to render that work safe and without risk to health
- Anyone entering a confined space must be provided with appropriate information, training and instruction appropriate to the particular characteristics of the proposed work activities
- A person shall not enter a confined space unless suitable emergency arrangements have been made which are appropriate to the confined space

Sources:

<https://www.hse.gov.uk/confinedspace/legislation.htm>

https://www.hsa.ie/eng/Topics/Confined_Spaces

<http://www.irishstatutebook.ie/2001/en/si/0218.html>



Confined Space Identification

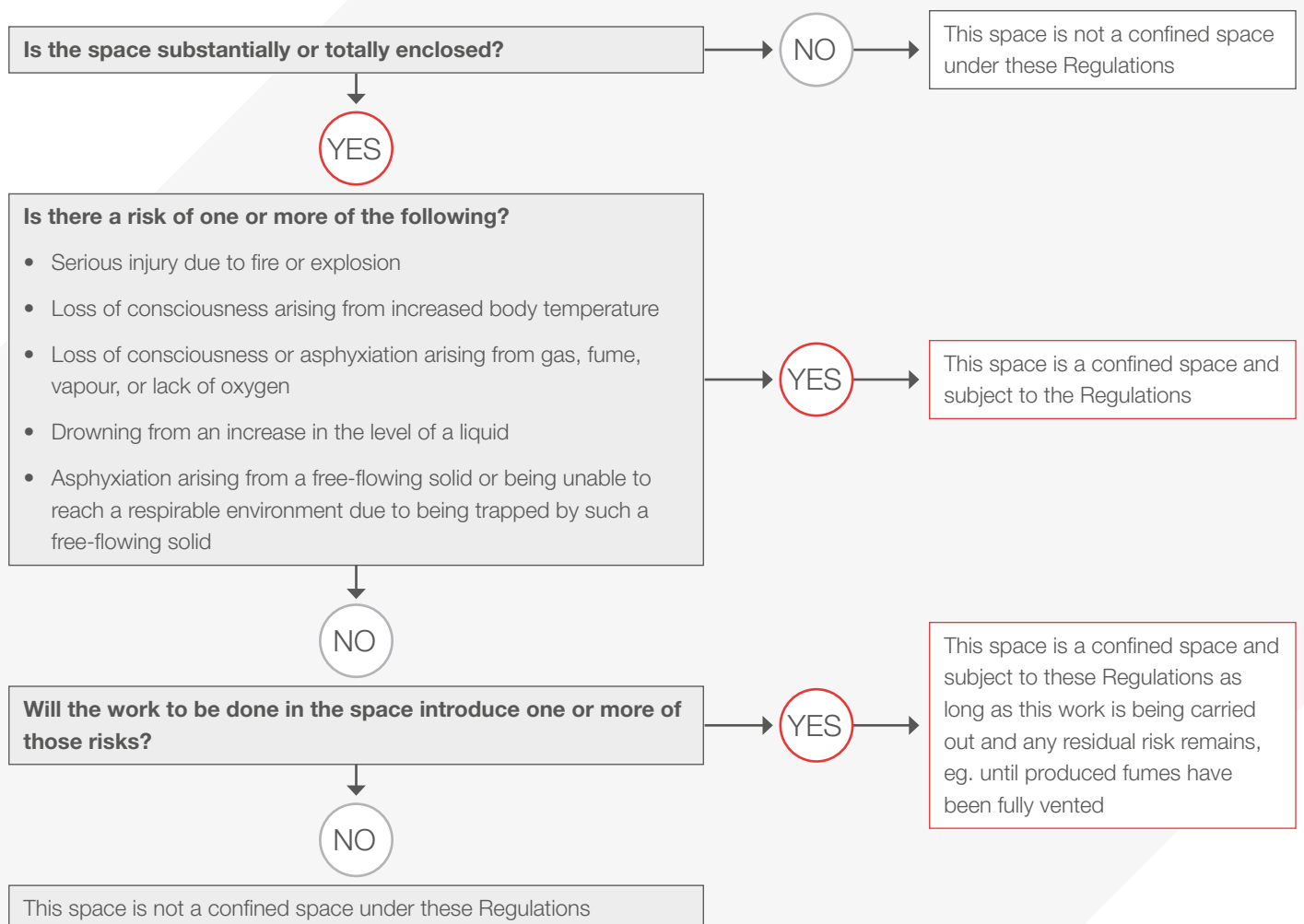
The Approved Code of Practice (ACoP) L101 explains the definition of a confined space and gives examples. It will help you assess the risk of working within a particular confined space and put precautions in place for work to be carried out safely.

Under these Regulations a 'confined space' must have both of the following defining features:

- (a) it must be a space which is substantially (though not always entirely) enclosed;**
- and**
- (b) one or more of the specified risks must be present or reasonably foreseeable.**

Consideration should be given to the possibility that a confined space may not necessarily be small, enclosed on all sides or difficult to get into or out of and it may be a place where people work on a regular basis.

The ACoP has a flow chart that can help with the decision-making process by establishing if a space is confined and describing the specified risks. There must be at least one of these specified risks present or reasonably foreseeable to make an enclosed space become a confined space.



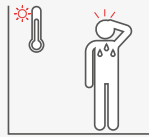
Confined Space Hazards

There are many factors to be considered before entering confined spaces, some are detailed below and include the ‘specified risks’ from the regulations.

Specified Risks:



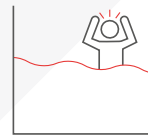
- Serious injury due to fire or explosion



- Loss of consciousness arising from an increase in body temperature



- Loss of consciousness or asphyxiation arising from gas, fume, vapour, or lack of oxygen



- Drowning from an increase in the level of a liquid



- Asphyxiation arising from a free-flowing solid or being unable to reach a respirable environment due to being trapped by such a free-flowing solid

Enclosed or ‘substantially’ enclosed areas, which can in themselves, be hazardous simply because they can make the way in and out of a confined space difficult to negotiate and similarly make movement inside restrictive and increase exertion levels. The use of breathing apparatus, rescue stretchers and equipment becomes much more difficult in these areas.

Flammable substances and oxygen enrichment, which may be present in the confined space, and could cause fire or explosion if ignited. These can be gases, fumes, vapours and dusts and may come from the confined space contents or from materials being used to clean the confined space which have a flammable liquid base or from the propellant gases of aerosol sprays for example. Where there is a possibility of flammable substances being present in a confined space then suitable equipment, including electrical equipment, will have to be specified to eliminate the risk of a spark or ignition source.

Excessive heat can also create problems for people working in confined spaces. Excessive heat can cause heat stress, leading to heat stroke, unconsciousness and possibly death. The heat can come from a plant, such as boilers or ovens that have not had sufficient cooling time before entry.

The possible presence of toxic gases, fumes and vapours; consideration should be given to the possibility of gases trapped in residues and sludge, scale or animal waste which may not have been identified by initial atmospheric testing and may be disturbed and released by someone in the confined space.

Toxic gases, fumes and vapours may contaminate the confined space from outside, from nearby processes or vehicle exhaust fumes for example. Where work in excavations is taking place then the contamination can come from hazardous substances previously deposited in the ground or from natural sources such as limestone producing carbon dioxide.

Oxygen deficiency / oxygen enrichment; a lack of oxygen can quite quickly affect the functioning of the brain and reduce ability to respond to the affected person’s environment. Oxygen can be diminished by the presence of rust, the contents of the confined space or by operations such as welding or burning.

Oxygen enrichment in the atmosphere, can increase the risk of fire, particularly in clothing and make it burn more violently. The excess of oxygen can be caused by leaking oxy/fuel gas cutting and welding equipment.

Free-flowing solids are materials that are granular substances or powders such as grain, flour, sand etc. These free-flowing solids can submerge or engulf a person preventing breathing or causing entrapment.

Due to the diverse range of confined spaces across multiple business sectors many more hazards can exist.

Safe System of Work

What do you need to do once your confined spaces have been identified?

Can the work be done without entering the confined space?

The main factor to consider, after identifying that a confined space exists, is to find a way of doing the work successfully without entry. The parameters for making the decision to enter or employ an alternative external method are 'reasonably practicable'. Examples of alternative reasonably practicable external methods include automatic tank cleaning systems, electronic survey equipment for inspections, long handle tools, remote operated valves and there are many more.

The precautions required in a safe system of work will depend on the nature of the confined space and the results of the risk assessment. The risk assessment should consider conditions and potential hazards in three general areas:

1. **The general condition existing in the confined space**, such as corrosion, areas that might be unstable, the previous contents and residues, contamination from other areas which can often be some distance away, any condition that may cause oxygen deficiency or enrichment and the physical layout of the area.
2. **Hazards and conditions created by the work in the confined space.** This might include fumes or vapours from cleaning materials, the introduction of a source of ignition such as electrical equipment or work that increases the temperature.
3. **Hazards that are outside the space but can create a danger to people working in the area.** Examples might include the unintended release of gases or liquids through pipe-work that is not adequately isolated, gases that drift in from adjacent plant and processes, or the unintended activation of any machinery in the confined space that isn't adequately isolated.

Are the conditions in the confined space likely to change during work?

One of the major problems in managing safe confined space entry is where circumstances change during the work; there are many recorded instances of unsafe situations arising, often with tragic consequences.

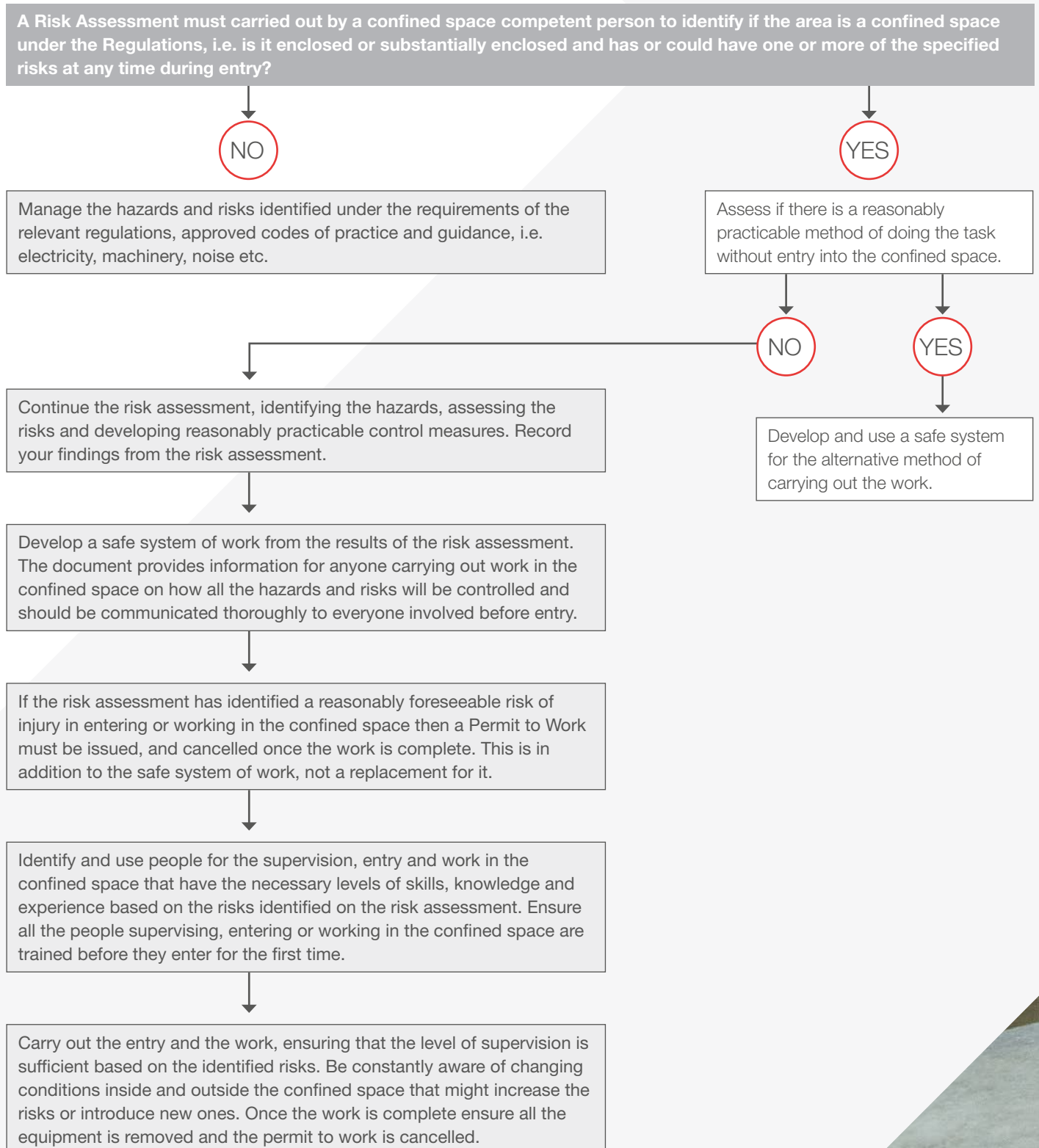
The main elements to consider when designing the safe system of work are detailed in the ACoP L101 and include consideration of:

- Supervision
- Competence for confined space working
- Communication
- Testing and monitoring the atmosphere
- Gas purging
- Ventilation
- Removal of residues
- Isolation from gases, liquids, other flowing materials
- Isolation from electrical and mechanical equipment and stored energy
- Selection and use of suitable equipment
- Personal Protective Equipment (PPE) and Respiratory Protective Equipment (RPE)
- Gas cylinders and internal combustion engines
- Gas supplied by pipes and hoses
- Access and egress
- Fire prevention
- Lighting
- Static electricity
- Smoking
- Emergencies and rescue
- Limiting working time



Confined Space Safe Working

Always consult the Regulations, Approved Code of Practice and guidance and a confined space competent person before entry.



Emergency Arrangements

No one should enter or work in a confined space unless there are emergency arrangements in place that are appropriate for the level of risk involved in the task/space. These should include making provision for extracting workers from the confined space and making provision for first-aid equipment (including resuscitation equipment) where the need can be foreseen (Regulation 5 Confined Space Regulations).

- There is a clear responsibility to make suitable arrangements for emergency rescue which will depend on the nature of the confined space, the risks identified and the likely nature of an emergency rescue.
- It is important to note that reliance on the emergency services alone would not be sufficient to comply with the regulations.
- There is a need to consider accidents arising from a specified risk, and any other accident in which a person needs to be recovered from a confined space.
- These arrangements will need to identify and consider how the alarm is raised if an emergency occurs, the equipment required, how you safeguard the rescuers and the training required.

The Approved Code of Practice (ACoP) L101 provides guidance in what needs to be considered for working safely in confined spaces



Our Training Team

Our qualified trainers are highly experienced having worked within many business sectors. They can ensure that the training delivered is relevant to your business and site, and provide training to deal with real life scenarios and specific hazards.

Qualifications

Level 3 Award in Education and Training

All our instructors hold the Level 3 Award in Education and Training. Certifying people to teach at a nationally accredited standard, the award ensures instructors have the ability and skills to teach in the post 16 education sector. (This qualification replaces the QCF Preparing to Teach in the Lifelong Learning Sector (PTLLS) course).

Training, Assessment and Quality Assurance (TAQA)

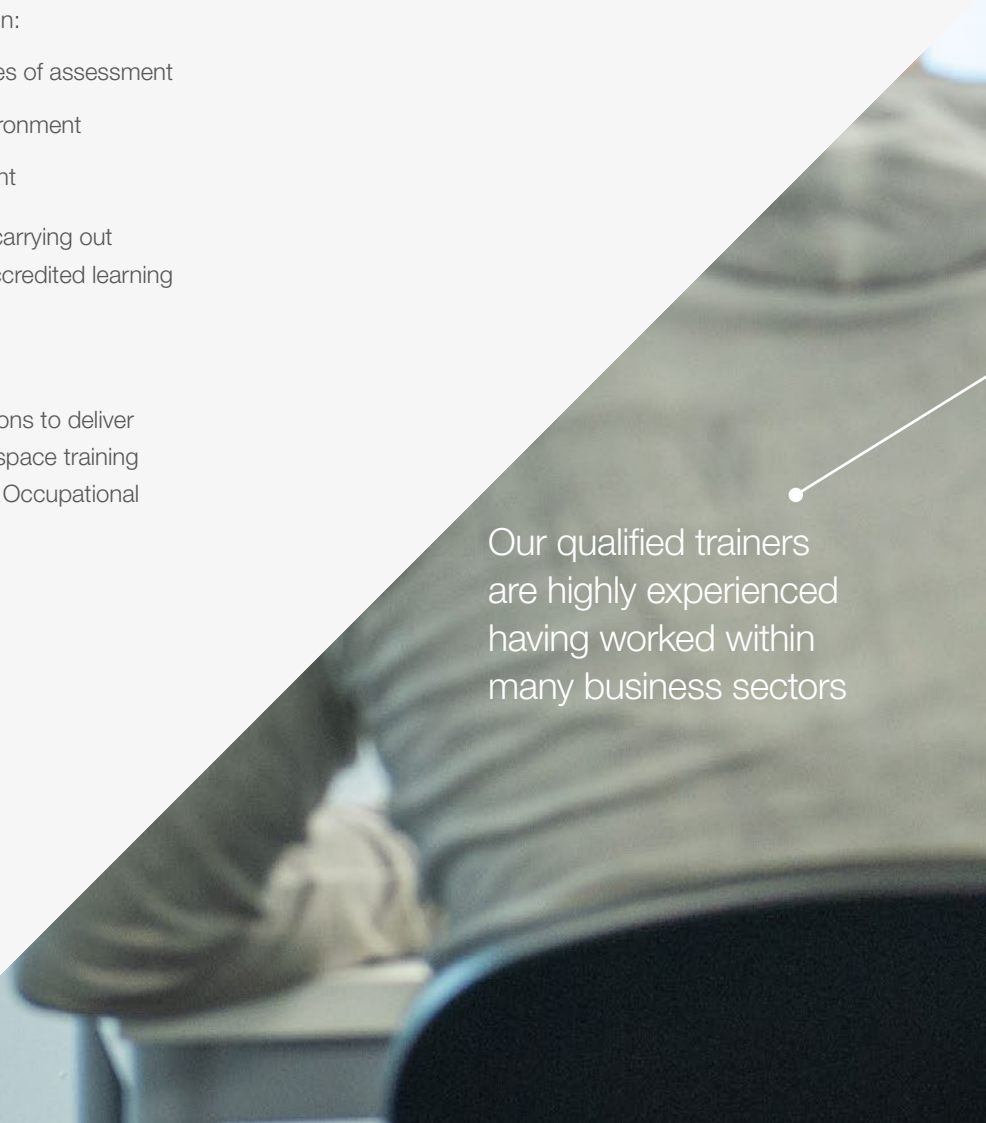
Our instructor / assessment team hold awards in:

- Understanding the principle and practices of assessment
- Assessing competence in the work environment
- Assessing vocational related achievement

These are designed for anyone assessing and carrying out quality assurance in all occupational sectors, accredited learning and non-accredited learning qualifications.

City & Guilds

All of our instructors hold the relevant qualifications to deliver and assess a comprehensive suite of confined space training and assessments mapped against the National Occupational Standard (NOS) for confined spaces.



Our qualified trainers are highly experienced having worked within many business sectors



Training Delivery

Our confined space training provides experience of real-life scenarios and tasks that would occur in a confined space, allowing delegates to fully understand risks and experience specific environments and hazards.

Our flexible approach to the delivery of confined space training is designed to suit you and gives you the choice of whether you would like to have your training at one of our national specialist training facilities or at your premises utilising either your facility (based on a set criteria), one of our relocatable units, through our mobile confined space units or online.

Virtual Reality (VR)

To support our confined space training offer, we have developed a series of virtual reality immersive experiences to allow learners to experience the dangers posed in different working environments, in a safe and engaging way. Using VR and the environments we've created based around core business sectors for utilities, manufacturing and maritime, provides our learners with the benefit of unforgettable training and therefore increased knowledge retention. The VR experience can also form part of our blended learning offer.

Blended Learning

We have moved a range of our confined space courses to a virtual delivery option, whereby the courses are delivered remotely by a real trainer at a set time through an e-classroom, which allows for interaction between the trainer and individual(s).

Therefore, we can offer a blended learning programme enabling remote training to be undertaken for the theoretical elements of courses and the remaining practical training being delivered through our multiple training centres or mobile and relocatable units.

We've developed immersive VR scenarios for learners to experience the dangers of different working environments safely



Specialist Safety Centres

In our specialist training facilities, we provide both open courses that allow individuals to attend scheduled courses, and closed courses specifically for your company employees. Courses regularly take place, throughout the year. You can enrol individual delegates, make multiple bookings or, hire units exclusively for a team of up to 10 people (dependent on course type).

Our specialist Safety Centres offer training in purpose-built labyrinths providing practical and immersive experiences in a controlled environment which is safe and yet realistic. Specifically designed to offer a kinaesthetic learning experience, our confined space labyrinths all have in excess of 30 metres of traverse capability, greater than 3 metres vertical access into multiple chambers and features relevant confined space hazards.

Confined Space Labyrinth Features

Vertical entry

Multiple access points offer different practical scenarios. Training can be offered using a variety of equipment to safely enter the confined spaces, including both davit arm and tripod entry.

Horizontal entry

Multiple entry points to allow a complex range of scenarios to be delivered. Horizontal / side entry points include a range of access covers.

Practical assignments

Real-world activities that are frequently undertaken in confined spaces can be practised, such as isolation procedures and other work-based activities.

Simulated environments

A variety of business-specific real-life environments can be simulated, ensuring an experience as close to real-life as possible. This allows delegates to safely practice in a kinaesthetic environment and respond to alarms and other emergency situations.

Realistic (including rescue) scenarios

We can facilitate a range of realistic scenarios, including different rescue scenarios that are both atmospheric and non-atmospheric related. This can include multiple extraction techniques using a variety of equipment.

Monitoring

CCTV coverage allows constant monitoring and reviewing of the training activities.

Our purpose-built labyrinths provide practical and immersive training experiences



Mobile Confined Space Units

In addition to having a relocatable unit and trailer, we have a fleet of mobile confined space units to enable confined space training and breathing apparatus training to take place at your site.

Our mobile confined space units incorporate state of the art technologies throughout to simulate different industrial settings in a safe environment. The flexible and controlled environment ensures trainees are immersed in a highly realistic and effective learning experience. The units are completely customisable to create a wide variety of industrial settings and to deliver training suitable to any level of experience.

Benefits:

- **Cost saving:** no expense incurred of trainees attending an external venue
- **Minimal disruption:** time that trainees are away from site is minimised
- **Rapid set up:** from arrival on site the self-sufficient unit can be up and running in 20 minutes

1. Rapid set-up of self-sufficient unit

- 240v internal and external power supply: powers all facilities in the fully contained unit
- 110v power for lighting and equipment
- Automatic, retractable handrail system: safety handrail around top of vehicle ensures speedy set-up and a safe working environment
- Retractable, extendable support legs: ensure a stable working platform
- External awning: provides weather protection at the exterior of the unit

2. Live monitoring and recording of training

- Infra-red cameras: are installed in the training tunnels, feeding to onboard internal and external LCD viewing screens
- Internal and external viewing screens: allow continual monitoring of all activity and shared learning with delegates outside the tunnel system
- All training within the unit is recorded to allow for post-training debriefing and discussion. Recorded content can be downloaded and supplied if required
- Microphone address system: enables live instruction from the trainer to the delegates whilst in the unit

3. Realistic simulation of industrial environments

- Onboard sound system and noise programmes: feeding simulated background noise, such as running water, into all tunnel areas enables the demonstration of model scenarios and creates a realistic environment
- Different light levels: dimmable LED lights throughout, to simulate different environments and to facilitate training of both novice and advanced users
- Smoke: spaces can be filled with smoke to facilitate training that will simulate conditions where rescue from fire may be likely

4. Vertical entry

- Over three metre vertical access shaft: to meet all current accreditation standards
- Tripod and winch: with full harness and rescue system
- Internal stairway access: to roof-mounted external training platform
- Safety handrail system: creates a fully enclosed, safe platform for training
- Non-slip safety deck: allows training to be undertaken safely in wet or damp conditions



5. Horizontal entry

- 30 metres of internal tunnels: horizontal shafts and tunnels featuring a flexible configuration with removable ladders and panels to provide a varying layout and create alternative training scenarios
- Constructed over two levels: creating a network of scrambling tunnels
- Emergency escape doors and hatches: are located throughout the tunnel system
- Isolation points: the unit contains features which may need to be located in a real situation, such as isolation for electricity, and mechanical isolation for chemicals

6. Breathing apparatus

- Respiratory protection and breathing apparatus maintenance area
- Onboard locker storage for breathing apparatus and training equipment
- A comprehensive range of equipment is available, including:
 - Breathing apparatus
 - Gas monitors
 - Rescue equipment

Mobile units incorporate state of the art technologies throughout to simulate different industrial settings in a safe environment



Accreditations Offered

Stay fully compliant with our wide range of courses associated with different awarding bodies and tailor-made training courses.

City and Guilds

The City and Guilds Scheme is the most widely recognised nationwide competency assessment scheme for confined spaces in the UK. These qualifications are for those who have to enter, control entry, supervise teams, manage confined spaces or are involved in emergency rescue. They are short course single unit regulated qualifications and are delivered by training centres recognised by the Awarding Organisation (AO).

The qualifications are delivered through a combination of practical and theoretical training at our approved City and Guilds centres and mobile units.



NCFE

NCFE are a national awarding organisation, who offer diverse, nationally recognised qualifications. NCFE accredited courses are designed and bespoke to fit a client needs and can be amended by Arco and validated by NCFE.

The NCFE Investing in Quality (IIQ) Licence is designed to give formal recognition to an organisation's bespoke courses that fall outside 'regulated provision' such as that on a national framework.





Confined Space Entry Training Courses

These training courses are for people involved in confined space work, whether entering and supervising or involved in supporting or preparing safe systems of work.

Specific training for work in confined spaces will depend on the type of confined space, an individual's previous experience and the type of work or activity they will be doing.

We offer a comprehensive range of training that covers:

- An awareness of the Confined Spaces Regulations and the need to avoid entry to a confined space, unless it is not reasonably practicable to do so.
- An understanding of the work to be undertaken, the hazards, and the necessary precautions.
- An understanding of safe systems of work, including 'permits-to-work' where appropriate.
- How emergencies arise, the need to follow prepared emergency arrangements, and the dangers of not doing so.
- Training on the practical use of safety features and equipment, the identification of defects and, where appropriate, demonstrations and practical exercises. Trainees are made familiar with both equipment and procedures before working for the first time in confined spaces. Qualifications in confined space working and entry are available.

There is also a need to organise refresher training. The frequency with which refresher training is provided will depend upon how long since the type of work was last done, or if there have been changes to methods of work, safety procedures or equipment.

Courses

Our confined space entry training courses include:

- Working in Low Risk Confined Spaces
- Working in Medium Risk Confined Spaces
- Working in High Risk Confined Spaces
- Control Entry and Arrangements for Confined Spaces
- NCFE IIQ 3524 Level 3 Intermediate Confined Space Training

Working in Low Risk Confined Spaces

Course Overview

Training for anyone working in a low risk environment and includes preparing to enter and work safely, entering and exiting confined spaces safely, using equipment and tools, following procedures and dealing with emergencies.

Duration (GLH)	Course Type	Validity	Accreditations	Min/Max Delegates
1 Day (8 Hours)	Competence based	3 Years	City and Guilds NOS EUSCS01 Level 2	6/10

Working in Medium Risk Confined Spaces

Course Overview

Training for anyone working in confined space environments where there is a realistic expectation of encountering or the introduction of a specified risk. It will require the use of escape breathing apparatus.

Duration (GLH)	Course Type	Validity	Accreditations	Min/Max Delegates
2 Days (16 Hours)	Competence based	3 Years	City and Guilds NOS EUSCS02 Level 2	6/10

Working in High Risk Confined Spaces

Course Overview

Training for anyone working in a confined space when there is a specified risk that cannot be controlled or eliminated. It will require the use of appropriate respiratory protective equipment (RPE) i.e. Self Contained Breathing Apparatus (SCBA)

Duration (GLH)	Course Type	Validity	Accreditations	Min/Max Delegates
3 Days (24 Hours)	Competence based	3 Years	City and Guilds, NOS EUSCS03 Level 2	6/8

Control Entry and Arrangements for Confined Spaces

Course Overview

Training for the entry controller / top person who controls entry and arrangements for confined spaces without entering them. It includes the duties of an entry controller, pre-entry procedures, entry into and exit from a confined space, maintaining communications and initiating and controlling emergency procedures.

Duration (GLH)	Course Type	Validity	Accreditations	Min/Max Delegates
3 Days (24 Hours)	Competence based	3 Years	City and Guilds, NOS EUSCS04 Level 3	6/10

NCFE Level 3 Intermediate Confined Space Training

Course Overview

This course is aimed at people involved in confined space working or planning. It provides guidance on current legislation, an understanding of safe entry and safe systems of work for confined spaces, along with hazard identification and risk management.

Duration (GLH)	Course Type	Validity	Accreditations	Min/Max Delegates
1-2 Days* (8-16 Hours)	Competence based *course duration based on recognised prior learning	3 Years	NCFE	4/8

Refresher courses and requalifications are available for the majority of courses.

Management of Confined Space Training Courses

Supervisors and managers need to be properly trained if they are responsible for managing work in confined spaces, carrying out risk assessments or preparing safe systems of work. This is additional to the relevant training required for the risk environment.

Anyone managing confined space working will be responsible for:

- Ensuring other employees have the right skills and competencies.
- Applying relevant legislative and industry requirements.
- Risk assessments and hazard identification.
- Developing safe work systems and emergency arrangements.
- Product selection and suitability.
- Reviewing and auditing.

Our industry experts can provide the competency training required to help supervisors and managers take ownership of safety and effectively manage work in confined spaces at your sites.

Courses

Our management of confined space confined training courses include:

- Supervising Teams Undertaking Work in Confined Spaces
- Legislative and Safety Compliance for Work in Confined Spaces
- NCFE Level 5 Management of Work in Confined Spaces

Supervising Teams Undertaking Work in Confined Spaces

Course Overview

This course is for managers, supervisors or other persons who will have responsibilities for personnel working in confined spaces. It will provide the background knowledge to enable the effective supervision or management of confined space operations and ensure that all personnel involved have appropriate levels of training. Successful completion of this course would allow authorisation of confined space entries; however, does not make the learner competent to enter/work in a confined space.

Duration (GLH)	Course Type	Validity	Accreditations	Min/Max Delegates
2 Days (14 Hours)	Competency based Course pre-requisite – must have completed the 6160-02 or 03 course Dependant on entries to be managed	3 Years	City and Guilds, NOS EUSCS05 Level 3	4/8

Plan Manage and Review Legislative and Safety Compliance for Work in Confined Spaces

Course Overview

This course is for Managers that are responsible for organising planning and managing work in Confined Spaces. The Manager may or may not supervise the actual job. It involves managing the work of others in, or at Confined Spaces; reviewing legal requirements; ensuring safety compliance; preparing procedures and appropriate documentation; and making suitable arrangements for dealing with emergencies.

Duration (GLH)	Course Type	Validity	Accreditations	Min/Max Delegates
5 days (47 Hours)	Portfolio of workplace evidence Course prerequisite: H&S qualification i.e. NEBOSH Relevant knowledge and experience	Life – dependant on updated evidence of competency	City and Guilds, NOS EUSCS06 Level 4	6/10

NCFE Level 5 Management of Work in Confined Spaces

Course Overview

This course is aimed at experienced supervisors and managers.

Duration (GLH)	Course Type	Validity	Accreditations	Min/Max Delegates
5 Days (40 Hours)	Competency based	3 Years	NCFE	4/8

Refresher courses and requalifications are available for the majority of courses.

Confined Space Rescue and Resuscitation Training Courses

Where work in confined spaces is required at your sites, you have a legal duty to identify and assess the risks to your people and take the necessary measures to keep them safe. Part of this means having suitable arrangements in the event of an emergency.

If you don't want to outsource these services, we can provide training for your employees so they can gain the skills to effectively rescue casualties from confined spaces.

The ACoP L101 provides the details on what you need to consider with regards to training:

- The likely causes of an emergency.
- The use of rescue equipment, e.g. breathing apparatus, lifelines, and where necessary a knowledge of its construction and working.
- The check procedures to be followed when donning and using apparatus.
- Checking of correct functioning and/or testing of emergency equipment (for immediate use and to enable specific periodic maintenance checks).
- Identifying defects and dealing with malfunctions and failures of equipment during use.
- Works, site or other local emergency procedures including the initiation of an emergency response.
- Instruction on how to shut down relevant process plant as appropriate (this knowledge would be required by anyone likely to perform a rescue).
- Resuscitation procedures and, where appropriate, the correct use of relevant ancillary equipment and any resuscitation equipment provided (if intended to be operated by those receiving emergency rescue training).
- Emergency first aid and the use of the first aid equipment provided.
- Use of fire-fighting equipment.
- Liaison with local emergency services in the event of an incident, providing relevant information about conditions and risks, and providing appropriate space and facilities to enable the emergency services to carry out their tasks.
- Rescue techniques including regular and periodic rehearsals/exercises. This could include the use of a full weight dummy.
- Training should be realistic and not just drill based and should relate to practice and familiarity with equipment.

We can provide you with the necessary support and guidance to identify the training you require.

Courses

Our confined space rescue and resuscitation training courses include:

- Direct Emergency Rescue and Recovery of Casualties from Confined Spaces
- Working as a Member of a Rescue and Recovery Team in Confined Spaces
- Confined Space Casualty Extraction for Non-atmospheric Situations
- NCFE IIQ 3530 Level 3 Emergency Rescue Training (ERT) in Confined Spaces

Direct Emergency Rescue and Recovery of Casualties from Confined Spaces

Course Overview

This course is for anyone who directs the activities of a team for Rescue or Recovery in Confined Spaces. This may include Rescue Team Leader, Coordinator, Entry Controller/Top Person or Supervisor in relation to Rescue and recovery of casualties, planning and preparing of Emergency Operations, mobilising Rescue Teams, directing and monitoring rescue activities, reporting and securing sites after incidents or emergencies.

Duration (GLH)	Course Type	Validity	Accreditations	Min/Max Delegates
1 Day (8 Hours)	Competency based Pre-course requisite of completing the 6160-08 course	3 Years	City and Guilds, NOS EUSCS07 Level 3	6/10

Working as a Member of a Rescue and Recovery Team in Confined Spaces

Course Overview

This course is for anyone who works as part of a rescue and Recovery Team in Confined Spaces. It includes preparing to carry out emergency activities, entering and exiting confined spaces safely, using emergency equipment, casualty recovery and handling devices, rescuing, and recovering casualties, and the use of appropriate Breathing Apparatus.

Duration (GLH)	Course Type	Validity	Accreditations	Min/Max Delegates
2-3 Days (24 Hours)	Competency based Pre-course requisite of completing the 6160-03 course	3 Years	City and Guilds, NOS EUSCS08 Level 3	5/8

Confined Space Casualty Extraction for Non-atmospheric Situations

Course Overview

Designed for those involved in the extraction of a casualty from a non-atmospheric related incident or who form part of the rescue team. The training will prepare the learner to enter and exit confined spaces safely; use rescue equipment; and follow procedures when dealing with emergencies.

Duration (GLH)	Course Type	Validity	Accreditations	Min/Max Delegates
1 Day (8 Hours)	Competency based	3 Years		5/8

NCFE Level 3 Emergency Rescue Training (ERT) in Confined Spaces

Course Overview

This course is aimed at people who will be entering confined spaces to undertake emergency rescue of casualties. The training provides an understanding and practical knowledge to carry out safe entry into a confined space, deal with the risks and carry out the required work.

Duration (GLH)	Course Type	Validity	Accreditations	Min/Max Delegates
2-3 Days* (16-24 Hours)	Competence based *course duration based on recognised prior learning	3 Years	NCFE	4/8

Refresher courses and requalifications are available for the majority of courses.

Breathing Apparatus Training Courses

Breathing Apparatus is used to protect the user against an atmosphere that may contain toxic gases, vapours or particulates as well as oxygen deficient atmospheres. Where a risk assessment has identified a requirement for Breathing Apparatus certain criteria must be met before its use.

Training will be required to ensure those using the equipment fully understand how to check, maintain and use safely in line with manufacturer's instructions.

We can provide training in a range of respiratory protective equipment:

- Open & closed systems
- Demand and constant flow equipment
- Chemical rebreathers
- Airline systems

Courses

Our breathing apparatus training courses include:

- Breathing Apparatus User

Breathing Apparatus User

Course Overview

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

Duration (GLH)	Course Type	Validity	Accreditations	Min/Max Delegates
1 Day (7 Hours)	Competence based	3 Years	-	6/8

Refresher course and requalification is available for this course.



Confined Space Consultancy and Advice

Working in confined spaces is a high-risk, high-harm environment. Our team of specialist confined space consultants are experienced in helping companies identify and assess their confined space risks and help them mitigate them through the implementation of a strong management system that can ensure both adequate control measures and safe entry procedures are in place.

Our consultants have built a strong reputation for providing workable, no-nonsense solutions. Strategic input from impartial experts on your project really makes a difference. Confident and expert independent advice can often simplify a project and save time and money.

Consultancy services are bespoke and tailored to meet client's individual and varied needs ranging from smaller drainage contractors through to emergency services, national utility providers and national and internationally known manufacturing giants.



Our consultants can provide:

- Policy / procedure writing and implementation
- Risk assessments, safe systems of work and emergency procedures
- Verbal / formal written advice and recommendations
- Confined space classification, production of confined space registers
- Advice on current best practice, including details on the latest National Occupation Standards (NOS) and Awarding Organisations (AOs) accreditations
- Contractor supervision and auditing
- Emergency planning and crisis management
- Education on procedure for entry, equipment selection, confined space management and standing operating procedures

All of our recommendations include competency and equipment requirements as standard. Our specialist consultants are highly experienced in confined space entry and regularly join our operational teams providing on-site services to clients.

Confined Space Medicals

Anyone whose duties require them to work in confined spaces is required to pass a medical fitness assessment. A medical assessment should be undertaken prior to an individual embarking on working in confined spaces and every two years thereafter (unless medically indicated) or whenever a significant change in health or working practice occurs that has the potential to compromise an employee's ability to carry out tasks safely.

Medical Assessment

Medical assessments are carried out by competent Nurse under the supervision of an Occupational Health Physician, either at a conveniently located medical centre or at clients' premises.

In addition to a medical questionnaire, a confined space medical involves an assessment of:

- General health (height, weight, BMI, blood pressure & pulse rate)
- Vision
- Hearing
- Urine
- Mobility
- Breathing
- Cognitive function
- Musculoskeletal function

The examiner will also pay special attention to the following:

- Diabetes
- Asthma
- Psychological problems
- Claustrophobia
- Skin problems
- Medication

All details of an individual's medical assessment and the information given within individual questionnaires will be treated in confidence and is fully compliant with the Data Protection Act.

Certification

On completion of the medical, a fitness certificate is issued advising of the results. Meeting the medical fitness levels required, indicates that at the time of the medical the individual is medically fit to perform the relevant job role e.g. working in confined spaces.

Where an individual does not meet all the medical fitness levels required, a fail certificate or certificate indicating the fitness level they can achieve will be issued by the medical provider.

It is the responsibility of the employer to ensure that all employees working in confined spaces are suitable for the confined space work they are undertaking.



Confined Space Support Team Services

When the risk presented to your employees is too high, it's critical that you transfer it from them to our highly trained experts. By outsourcing to our specialists, you can avoid the risk of being non-compliant as well as reduce the in-house costs of performing these tasks for infrequent or ad-hoc services.

Our confined space support services include:

- **Supervision**
- **Rescue**
- **Inspection**
- **Surveying and mapping**
- **Cleaning and maintenance**
- NEBOSH/IOSH Accredited Project Management
- Remote CCTV Examination
- IRATA Rope Access
- Working at Height Rescue
- Confined Space Techniques including high risk, escape Breathing Apparatus, search and rescue
- Emergency First Aid at Works including Oxygen Resuscitation and Automatic Defibrillation
- Structural Examiners Competency - STE 04
- EUSR Water Hygiene
- EUSR Substations

Our expert teams are handpicked, highly driven individuals who are at the forefront in their field. We employ qualified surveyors, engineers, time-served search and rescue teams and experienced project managers with proven IOSH and NEBOSH Health and Safety accreditations. The team's knowledge and experience mean that they can provide simple, practical and clear suggestions. Our team's qualifications include:



Confined Space Entry Management and Entry Supervision

Confident and expert independent advice will often simplify a project, save time and money whilst reducing reputational risk. Our knowledge and experience mean that we always provide simple, practical and clear suggestions.

Our services include:

- Escorting of your operatives or contractors into confined spaces
- Hire of confined space equipment
- Management and control of confined spaces
- Creating safe systems of work into confined spaces
- Strategic input on your project from impartial, non-biased experts
- Production of Risk Assessments, method statements and emergency arrangements
- Provision of on-site supervisors (including City and Guilds 'Supervisor Level' operatives)
- Provision of on-site support teams or additional manpower



Confined Space Rescue

We are the industry's leading specialist for implementing emergency response procedures, crisis management and casualty extraction. Our dedicated standby rescue teams and specialist confined space rescue consultants are highly experienced in confined spaces safety and provide both 'entry' and 'non-entry' rescue solutions to businesses throughout the UK. Teams can operate as standby teams to support your entry teams or our own team can provide the rescue provision for you.

We offer national coverage, and are able to provide support 24/7; working days, nights and weekends.

Our teams are experienced in working alongside other rescue services, scaffolders, crane operators, roped access teams, fire and rescue services and HART teams. We pride ourselves on using state-of-the-art search and rescue equipment.

Sectors and situations

We offer bespoke rescue cover for power station outages, hazardous chambers, tanks and silos entry and working in hostile environments. The team are experienced in working with many major utility suppliers and their Tier 1 contractors.

Our confined space rescue service can include:

- Advice and recommendations
- Rescue plans and risk assessments
- Rescue supervisors
- Full standby rescue teams
- Additional operatives to support your teams

Confined Space Inspection

Our expert inspection teams are highly skilled accredited surveyors with long term experience in detailed structural examinations, which are both difficult to access and potentially in a hazardous environment.

Our teams use both IRATA and Confined Space techniques to ensure safe access can be made and a high-quality inspection can be achieved. Full detailed reports are submitted to the client's specific requirements.

Our areas of expertise include:

- General inspections
- Principal inspections
- Special inspections
- Culvert inspections
- Chambers
- Tunnels
- Shafts
- Box girder
- Historical structures
- Pipe systems
- Roof voids



Confined Space CCTV Inspection

We provide remote CCTV examination services for underground asset inspections. Our team has extensive expertise examining assets including culverts, ducts, industrial drainage, pipe systems, voids and other underground assets.

Remote crawler units, quick view zoom inspection and push rod cameras suit any confined space scenario, eliminates the risks of a confined space entry and exposure to specified risk and provides the ability to conform to the Health and Safety hierarchy of control.

Our remote visual inspection units are able to:

- Survey between 150mm-1200mm
- Identify defects and blockages using a HD camera
- Provide the location of the defects or blockages with high quality footage, with the inbuilt measuring system
- Record defects using the inbuilt laser measurement system which is accurate to 1mm
- Look into pipelines, manholes or tanks using a zoom inspection camera system
- Provide clear pictures using high powered LED lighting
- Zoom over 80m, maintaining a clear resolution
- Neutral turn and successfully pass debris



Confined Space Surveying and Mapping

Our safety teams working in conjunction with specialist surveyors carry out alignment surveys and topographical surveys in confined spaces and other hazardous areas. To date, our staff have successfully surveyed some of the deepest most complex structures in the UK and are unrivalled in terms of expertise and equipment.

The teams make use of equipment such as: laser scanning, radio location (cat and genny), ground penetrating radar and innovative man-entry surveying techniques to map confined spaces below ground.

- Culvert alignment
- Cross / long sections
- Laser scanning

Working in every area of surveying we are able to carry out detailed traverses through large and small sewers, culverts and tanks producing line and level, cross sections, arrangements and directional surveys with a high degree of accuracy.

Depending on the type of project we work with dedicated technology partners which means we are able to provide your project with a comprehensive package of utility surveying services. Our office support facilities handle all forms of mapping, CAD, electronic media and reporting.



Confined Space Cleaning and Maintenance

We offer a range of confined space cleaning services. We can provide an expert and safe solution for cleaning the most difficult silos, tanks and vessels.

By utilising our experienced in-house team who are fully trained and skilled in the safe working practices associated with confined space cleaning we can provide cleaning services for:

- Culverts
- Tanks
- Pipes
- Vessels
- Silos

Confined space cleaning affects nearly all industries. We can also clean voids, basements and pits for general fire prevention, hygiene and end of build cleans.

We work with many sectors including:

Food and Animal Feed Manufacturers

Tanks, vessels and hoppers may potentially be classified as confined spaces. Such vessels may need cleaning if product becomes contaminated from water ingress, when changing products or to remove blockages. Tanks/vessels and hoppers require annual inspections for insurance purposes and need cleaning and preparing for inspection. We can also undertake preparation for repair or modification work.

Petrochemical

High risk confined space cleaning may be required for periodic inspections and maintenance work, or for the changing of fuel or biofuel.

Power Stations

Confined space cleaning services can assist with the removal of blockages, maintenance of turbine plates and the removal and reapplication of rust inhibitors. Assistance can also be provided for the preparation of engineering works during planned shutdowns.

Pharmaceuticals

Storage vessels/silos may require periodic cleaning and maintenance. These areas can often be convoluted and difficult to gain access with no safe systems in place. Confined space services may be required as a safe means of access for the team to carry out the task.

Public Sector

We work with numerous local authorities and offer confined space cleaning and maintenance to a broad spectrum of areas, such as basements and culverts.

Facilities Management

We work directly with the facilities management sector to tailor our services to the customer. Services may involve maintenance tasks in hazardous environments.

Confined Space Equipment

When working in confined spaces, you must have the correct tools for the job. Thanks to our collaborative approach, we strive to gain a deep understanding of your business to offer the most appropriate equipment and solutions. We also offer the most comprehensive range of safety products on the market, ensuring we can meet any of your safety and rescue needs.

Partnering with Arco for your confined space equipment means you benefit from:

- Bespoke equipment and products developed to mitigate your own unique safety risks
- A vast, curated range of quality equipment, sourced from over a thousand vendors
- Assurance that all equipment you receive is fully compliant with the latest legislation

Equipment Sales

We offer a range of equipment for purchase. We stock a comprehensive range of items to provide you with choice, so that you can be confident that you are purchasing the correct combination of technical products for your specific risks.

We're not tied to any manufacturer, so our advice is always impartial and based upon providing you with the most suitable products.

Equipment includes:

- Gas detection
- Escape breathing apparatus
- Harnesses (CS)
- Tripod bundles
- Signage
- Stretchers
- Lighting
- Helmets

Equipment Hire

When working on confined space projects be confident your team has the right equipment, in full working order and with current test documentation.

At our Arco Hire Centres our technical operators can offer expert advice, helping you to choose the best equipment for your operatives and environments. We offer the most current technologies from leading specialist suppliers and have various contracts to suit your requirements:

- Standard hire contracts - based on a minimum hire period of a week and extended to meet your requirements.
- Contract hire - for longer terms of up to five years, including all service and maintenance during the hire term and can be tailored to suit customer requirements.

Our equipment hire brochure provides full details of the products available for hire and the different contracts we offer. To request our equipment brochure or to order please contact:

0330 390 0822

enquiries.hire@arco.co.uk



Equipment Service & Maintenance

Recommended Inspection Schedules

Safety equipment used for confined space entries should be inspected and have a function test carried out by a competent person immediately prior to each use.

In addition, the following inspections are required/recommended under the relevant standards and legislation.

- **Lifting Equipment (Tripods, Winches, Recovery Blocks)**
Manufacturers state that lifting equipment should be serviced* annually and under LOLER (Lifting Operations and Lifting Equipment Regulations 1998). Lifting equipment used for man riding should be inspected on a six-monthly basis by an independent competent person.
* This is typically carried out by an authorised service centre and is not to be confused with an insurance inspection.
- **Fall Arrest Equipment (Fall Arrest Blocks, Harnesses, Lanyards)**
This type of equipment is typically formally inspected on a six-monthly basis.
- **Breathing Apparatus (Full BA and Escape BA)**
All breathing apparatus and respiratory equipment should be inspected on a monthly basis and serviced annually. In addition, compressed air cylinders should be tested every five years and the breathing apparatus sets typically require additional major services/overhauls on a six to ten yearly basis, depending upon manufacturer.
- **Airline Breathing Equipment**
Air supply to breathing apparatus should be air-quality tested at least every three months and more frequently when the air supply cannot be assured. In addition, mobile air supply (compressors) should be tested whenever re-sited.
- **Gas Detection (Portable and Fixed)**
Gas detectors typically require six monthly calibrations.

Recommended Maintenance and Calibrations

Scheduled maintenance and calibrations should be undertaken to ensure your kit is in full working order with the correct, current test documentation. Our engineers follow a regulated equipment issue and inspection process in order to maintain all equipment to safe and legal standards. Only authorised persons are permitted to inspect our service equipment. Trained and certified by the major manufacturers to the highest standards required, our engineers maintain your equipment so that you can depend on it when you need it the most.

Confined space safety equipment should be inspected and tested by a competent person before each use





Face Fit Testing

When the respiratory protection being used in confined spaces is a tight-fitting full-face mask, wearers should ensure they undertake a face fit test.

Face fit testing is a method for checking the face piece matches the wearers individual facial features and provides a tight seal, which in turn protects them against the hazards they might be exposed to.

Face fit testing should then be repeated:

- Every two years, or more frequently depending on the level of risk
- If issued with a different make/model/size of mask from the one passed on
- If the wearer has any significant facial changes

Remember - no one respirator will protect everyone!

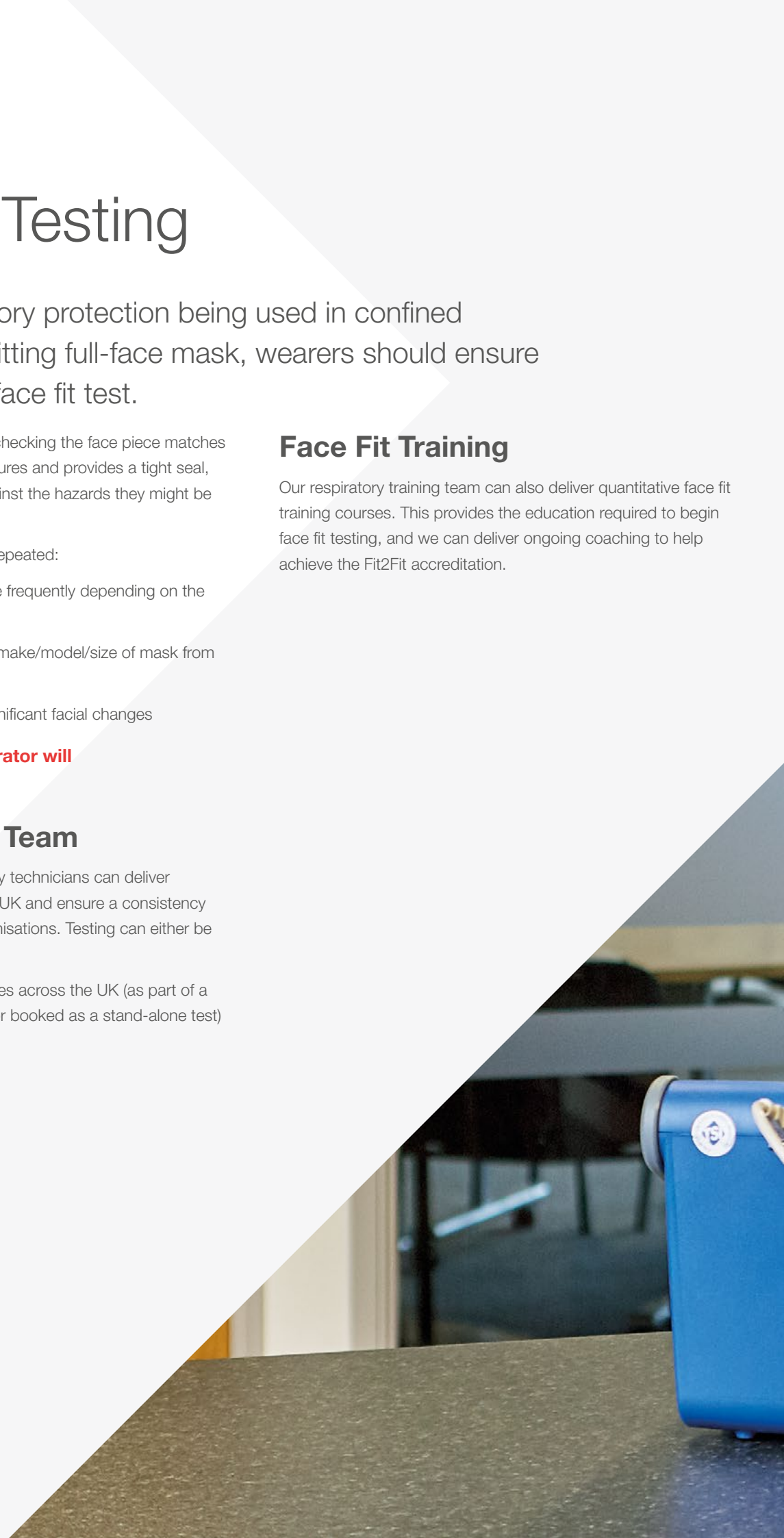
Our Respiratory Team

Our Fit2Fit accredited respiratory technicians can deliver testing locally to all areas of the UK and ensure a consistency in testing across multi-site organisations. Testing can either be conducted at:

- One of our training centres across the UK (as part of a confined space course or booked as a stand-alone test)
- Select Arco stores
- Your organisation's site

Face Fit Training

Our respiratory training team can also deliver quantitative face fit training courses. This provides the education required to begin face fit testing, and we can deliver ongoing coaching to help achieve the Fit2Fit accreditation.






Your world made safer.

Key:

-  Training Facility
-  Hire
-  Services and Maintenance

● Linlithgow


● Workington


● Hull - Arco


● Doncaster


● Warrington


● Eccleshall


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Contact us

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