

CONFINED SPACE PPE SELECTION

WORKING IN CONFINED SPACE

A good number of people are killed or seriously injured in confined spaces each year across EMEA. This happens in a wide range of industries and it includes the people working in the confined space and those who try to rescue them without proper training and equipment.

What is a confined space?

Many workplaces contain areas that are considered "confined spaces" because while they are not necessarily designed for people, they are large enough for workers to enter and perform certain jobs. A confined space also has limited or restricted means for entry or exit and is not designed for continuous occupancy. Confined spaces include, but are not limited to, tanks, vessels, silos, storage bins, hoppers, vaults, pits, manholes, tunnels, equipment housings, ductwork, pipelines, etc.

What are the dangers from confined spaces?

Hazards can arise in confined spaces because of the following issues (list is not exhaustive):

- A lack of oxygen or poisonous gases, fumes or vapors
- A risk of falling (i.e., manholes) requiring emergency escape or rescue
- Liquids and solids which can suddenly fill the space
- Fire and explosions
- Highly concentrated dust
- Hot conditions

Those dangers may either already be present in the confined space or may arise from the work being carried out: grinding, welding.

What the law says

You must carry out a suitable and sufficient assessment of the risks for all work activities to decide what measures are necessary for safety. For work in confined spaces this means identifying the hazards present, assessing the risks and determining what precautions to take. In principle you should follow the following guidelines:

- 1. Avoid entry to confined spaces, e.g., by doing the work from outside:
- 2. If entry to a confined space is unavoidable, follow a safe system of work including but not limited to:
 - a. Supervisor
 - b. Are people suitable for the work (training)?
 - c. Mechanical or Electrical Isolation when required
 - d. Cleaning before entry (ventilation)
 - e. Check the size of the entrance
 - f. Provision of ventilation
 - g. Testing the air
 - h. Provision of special tools and lighting Provision of breathing apparatus
 - i. Preparation of emergency arrangements
 - j. Provision of rescue harnesses
 - k. Communications
 - l. Check how the alarm is raised
 - m. Is a 'permit-to-work' necessary?
- And put in place adequate emergency arrangements (internal or external such as fire-brigade's rescue team) before the work starts.

OUR DEDICATED PERSONAL PROTECTIVE EQUIPMENT OFFERING





The Oxy-Pro is a chemical oxygen self-rescuer with a long 30-minute service time as it uses potassium superoxide (KO²) to regenerate exhaled air.

Combining comfort, performance, and quick startup, the **Oxy-Pro** has established itself as the benchmark on the self-rescuer market.



- Casing: Stainless steel
- Vacuum gauge: Easy-to-use visual indicator
- Characteristics of the respiratory bag: Anti-static, 6-litre capacity

- Respiratory bag attachment:
 Stays attached to the casing for maximum security
- Training appliances can be refilled with air
- Low-cost training for users
- Service life: Up to 10 years with minimal maintenance

BIO-S-CAPE

The Bio-S-Cape is an Emergency Escape Breathing Device (EEBD), with 15 minutes duration. As it is easy to put on it can provide immediate relief in evacuation scenarios, such as toxic or low oxygen level environments.

The Bio-S-Cape complies with the EN 1146:2005 standard, the SOLAS convention and ISO 23269-1:2008 standard

FEATURES & BENEFITS:

- Regulator triggered automatically upon opening of the bag
- Automatic positioning of the hood due to the inflatable air cushion behind the user's neck
- Non-metallic end of duration alarm whistle
- High visibility hood, large, adaptable to all face shapes and all types of facial hair, resistant to moisture, chemical environments, and extreme temperatures
- Fully airtight, comfortable, and tear-resistant neck seal due to a double anti-tear layer

- Overpressure maintained inside the hood eliminates any risk of the ingress of toxic gases
- Permanent visibility of the gauge: easy pressure control during storage and during evacuation
- Salt accumulation reduction system
- Label positioned along the axis of the bag for a better visibility and to avoid accidental removal
- Dark inner surface to the hood, ideal in sunny or maritime environments with lots of brightness and the sun's glare



To review other Respiratory Confined Space solutions from Honeywell such as Working Set range (SCBAs & Pressure Demand Airline set solution) please visit

https://www.honeywellsafety.com/UK/Products-by-Hazard/Confined_Space.aspx or contact your Honeywell representative.





Confined spaces such as pipelines, tanks, underground vaults, manholes, storage bins, and silos require specific gas detection solutions. At Honeywell, we always put safety first and have designed solutions specifically for sampling and monitoring confined spaces, before and after entry, which offer reliability, visibility on gas readings, ease of use, and connectivity. To find out more about gas detection solutions from Honeywell, visit https://www.honeywellanalytics.com and https://www.honeywellanalytics.com and https://www.raesystems.com.

Honeywell BW™ Ultra

The Honeywell BW $^{\text{M}}$ Ultra is a five-gas detector from Honeywell that is designed specifically for sampling and monitoring confined spaces, before and after entry. It benefits from unmatched sensor technology, visibility on gas readings, comfort, and connectivity – even in most extreme working conditions. The Honeywell BW $^{\text{M}}$ Ultra simultaneously detects the four gases you're required to monitor in confined spaces. Plus there is a fifth sensor for the gas of your choice adding an additional level of protection for your confined-space entries.



- Large, easy-to-view screen
- Enhanced situational awareness for the hole watch
- The new 1-Series sensor for enhanced reliability
- Honeywell TouchConnect[™] Technology for quick instrument management
- Remote monitoring for an additional layer of protection
- High standards of sensor quality and reliability
- Repeatable performance without nuisance alarms even in most extreme conditions
- Expected life time for sensors: up to five years



DuraHoist™ 3Pod

A single tripod solution for various work situations in confined spaces that's easy to transport and quick to install.

It can be used in conjunction with the DuraHoist winch and MightEvac® self-retracting cable lifeline complete with 15–40 m emergency rescue winch, to form the core of a stable and secure confined-entry/rescue system.



FEATURES & BENEFITS:

- Easy to transport (1.45 m when closed, with leg-lock mechanism to facilitate transport, even in small vehicles)
- Can be installed easily and safely in less than 2 minutes (tripod legs open simultaneously, and can be locked in one go via single button)
- Can be adjusted to suit the space available around a manhole (1 m, 1.5 m, 2.5 m)
- Certified as compliant with the latest EN 795:2012 Class B standard
- Tested for 2 people (each weighing up to 140 kg)

DuraHoist™ Arm System

Portable solutions for various work situations in confined spaces and rescue/retrieval applications, easy to transport and quick to install.

- Lightweight, manageable components for easy storage, transport, and set-up
- Compatible accessories DuraHoist winch and MightEvac® SRL to form the core of a stable and secure confined-entry/rescue system.
- Certified to the last requirements of the EN 795:2012 Class B



- Rapid set up: lightweight aluminum durable system components, no tools required for assembly
- Easily adjustable: 4 arms positions; height adjusts from 2.01 m to 2.54 m
- Fall arrest, rescue, and material lifting devices fixed on the same side of the system for better safety (patented technology)
- Certified as compliant with the latest EN 795:2012 Class B
- Modular design allows the use of fixed or portable base and an optional mast with extensions
- Portable and fixed base options in stainless or galvanized steel

MightEvac® Fall-Protection Retrieval Hoist

Rescue/retrieval hoist, compatible with DuraHoist Tripod and DuraHoist Arm System

FEATURES & BENEFITS:

- Quick-activation rescue winch (for raising or lowering), gear ratio of 5:1
- Corrosion-resistant stainless-steel/aluminium components
- · Convenient, heavy-duty carrying handle
- Integrated fall indicator
- 136 kg weight capacity
- Galvanised or stainless-steel cable of between 4.8 mm and 15-40 m in length
- Complies with EN 360:2002 and EN 1496:2017





Winch/Material Handling

Winch, compatible with DuraHoist Tripod and DuraHoist Arm System

- DuraHoist Winch can be used to lower and lift equipment, tools, and other types of materials
- Compliant with EU Machinery Directive 2006/42/EC and approved for up to 300 kg weight load
- Weight: 16.5 kg
- Two length options: 15 m and 30 m



H-Design® Harness for Confined Spaces

A harness dedicated to workers operating in confined spaces, particularly in the area of water treatment.

With an innovative H-shaped design providing unrivalled comfort, the harness also comes with a comfortable belt that can be used to attach a self-rescue mask like the Oxy-Pro. Because the belt and harness are separate, they are available as a single unit or as individual components.



FEATURES & BENEFITS:

Comfort and freedom of movement

- Unique, innovative H-shaped design with horizontal leg straps
- Lightweight, flexible padded belt with vertical adjustment for even more comfort
- The self-rescue mask can be positioned to the front, side, or back of the harness for greater freedom of movement
- Stretch-webbing shoulder straps for enhanced comfort

Security

- The self-rescue mask slides smoothly around the belt (from back to front and vice versa), allowing for quick access in an emergency
- Front and back fall indicators

Flexibility

- With the harness available in three sizes, and the belt available in two (S/M and L/XL), there is a size to fit all workers
- Thanks to its single-strap attachment system, the belt can be used with any of the leading self-rescue masks on the market
- Automatic buckles at leg level make adjusting and wearing the harness easier than ever



TurboLite™ Edge Self-Retracting Lifeline

Honeywell Miller TurboLite™ Edge is a 2-metre, edge-tested, self-retracting lifeline that is both lightweight and highly durable. It is certified for weights of up to 140 kg and approved for attachment at foot level. It can also be attached directly to the tripod in order to secure the operator working outside the confined space.



- Very fast locking mechanism reduces fall arrest distance, which is particularly important when fall clearance is limited
- Extremely compact and lightweight for greater comfort during use
- Integrated fall indicator for easier visual inspection
- · Integrated swivel prevents lifeline from twisting
- 2-metre lifeline for greater manoeuvrability on the job
- Certified as compliant with the requirements of the EN standards: 2002 VG11.085 (FF2) + VG11.060 (edge-resistant)
- Certified for weights of up to 140 kg (VG11.062)

Söll GlideLoc Permanent Vertical Fall-Prevention System

The Söll GlideLoc is a vertical and horizontal access system that complies with the latest EN 353-1:2014+A1:2017 standard which deals with equipment used to protect against falls from a height. This system is permanently installed on the host structure, making it easy for confined spaces to be accessed safely. It consists of either a fall-prevention rail that can be installed on an existing ladder, or a ladder with an integrated fall-prevention rail to allow the passage of a shuttle. The GlideLoc system is a tried-and-tested solution that has been in use in various domains for many decades.

The Body Control I shuttle is the central component of this system

COMPLIES WITH RIGOROUS SAFETY STANDARDS

- Certified under the latest EN 353-1:2014+A1:2017 standard
- Two independent fall-arrest functions, activated in the event of backward or downward falls
- Fast arrest: Distance of <140 mm
- Fall indicator

FOR USE IN A WIDE RANGE OF APPLICATIONS

- Approved for workers weighing 40–140 kg
- Suitable for inclined ladders and rails at angles from -10° to +15°

COMFORT

- The system facilitates ease of movement in all situations, thus reducing worker effort
- Large, ergonomic karabiner that's easy to handle – even while wearing gloves

ROBUST AND DURABLE

- Larger, sturdier polymer rollers with a lifespan that's twice that of traditional rollers
- New shuttle casing offers 80% shock absorption for improved impact protection and reduced maintenance



Söll GlideLoc ladder and rail





ROBUST, FOR ADDED SAFETY

- Rigid and durable metal structure that allows the insertion of grip handles on the ladder rungs for better grip in wet or dirty environments
- Safety equipment can be attached to the ladder
- Söll BodyControl fall-arrest systems offer exceptional quality and are certified under the EN 353-1:2014+A1:2017 standard. They guarantee worker safety by providing fast arrest in the event of backward or downward falls

ROBUST, FOR REDUCED COST OF OWNERSHIP

- When compared to cable systems, this robust rail is more resistant to wear and tear and any accidental impacts. Yearly inspections are easy and quick, as only a small number of items need to be checked
- Indefinite lifespan, provided that the system undergoes a yearly inspection
- Available in three materials (aluminium, hot-dip galvanised steel, and stainless steel) to meet all use scenarios – whether you're looking for corrosion-resistance or a stylish appearance

FLEXIBLE AND ADAPTABLE

- A wide range of mounting brackets allow for installation on most structures.
 NB: Custom connections are available on demand
- Rails can be installed at any height. Which means that they can be used for buildings and confined spaces at elevated heights



- The absence of intermediate connections means that fall-protection devices can glide seamlessly along the rails
- Söll BodyControl fall-protection systems are designed for a comfortable descent, even when working at an angle





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