Fall protection product requirements for confined spaces

Confined spaces represent a major health and safety risk for many workers. Recognising and planning appropriately for confined space work can mean the difference between a job well done and a disaster.

Confined space can be defined as an area that:
• is large enough for an employee to bodily enter and perform work
• has limited or restricted means of entry or exit
• is not designed for continuous human occupancy
• has the potential for significant hazards to be present.

Prior to commencing the work in confined spaces, careful identification and assessment of the hazards should be carried out in order to determine what precautions to take. Within the European Union, there is no specific legislation relating to work in confined spaces. However, basic guidance from Directive 89/391/EEC can be applied in regard to aspects of safety and health in the workplace. This directive places the liability on the employer to identify the risk and take the appropriate measures according to the specific characteristics of every workplace, including confined spaces.

It is critical that procedures for confined space entry are followed before any worker enters such areas. This is especially important where there is a reasonably foreseeable risk of serious injury in entering or working in the confined space. Usually national and internal company regulations require a formal written permit-to-work system as an extension of the safe system to work (UK HSE, Safe work in confined spaces, Confined Spaces Regulations 1997). The use of a permit-to-work system provides a ready means of recording findings and authorisations required to proceed with the entry.

Confined space entry and retrieval equipment may be necessary to facilitate both entry into and exit from confined spaces. Proper fall protection systems for workers comprise anchorage (e.g. tripod), full-body harness, connecting devices (e.g. retractable lifeline, winch / rescue unit).

Retrieval equipment is useful for lowering workers or materials into confined spaces as it controls the descent rate and prevents accidental falls into the work area. The MSA **Workman Winch** is a device certified for the raising or lowering of both personnel and materials.

If a worker needs to be quickly extracted from a confined space without the entry of another worker, it is very difficult for an average person to pull someone out of a deep manhole without some mechanical aid. For that reason, the newest MSA **Workman Rescuer** provides fast, easy and intuitive fall protection with integral bidirectional retrieval capability.

Not only does the MSA **Workman Rescuer** stop a fall, its retrieval capability allows the user to ascend or descend to a safe location.

The **Workman Winch** can be easily attached to the MSA **Workman Tripod** for raising and lowering materials and personnel, and a Workman Rescuer self-retracting lanyard with emergency rescue capability for fall arrest and emergency retrieval. The SRL with emergency rescuer remains connected to the worker who has entered the confined space. The standard **Workman SRL** which can be used in place of the Workman Rescuer allows the worker freedom of movement within the confined space and doesn't require a topside attendant to constantly play out/retract the cable line on a hoist as the worker moves around. The advantage of using the MSA **Workman Rescuer** is that, in the event of a fall, the top-side attendant activates the emergency rescue feature and retrieves the worker below without needing to enter the confined space.

A wide range of **Workman** and **Evotech** harnesses is available for use with retrieval equipment. Shoulder, back or chest D-rings/loops may be used as retrieval line attachment points. For confined space emergencies with extremely tight openings, a **Workman Spreader Bar** is an ideal solution providing both comfort and security when lowering and lifting workers. The spreader bar is typically used with a winch and tripod assembly, attached to the harness via shoulder attachments, and keeps the victim in an upright position, reducing the space needed to extract them. Integrated web loops can also be used to secure an incapacitated victim's arms when lifting or lowering.

Before entry into a confined work area, all equipment must be inspected carefully before each use. **Any equipment that shows any signs of wear, damage or doesn't pass the inspection should not be used.** Due to the variety of risks and quantity of different equipment which can be used, all personnel involved in confined space entry, including supervisors, entrants, attendants and rescue personnel, should be well trained. Individuals authorizing confined space entry must have complete knowledge of the space's contents and hazards. All confined space workers must fully understand their duties prior to entry or if there are changes in assigned duties or confined space applications.