



# FALL PROTECTION AWARENESS

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## *WHY IS FALL PROTECTION IMPORTANT?*

Falls are among the most common causes of serious work related injuries and deaths. Employers must set up the work place to prevent employees from falling off of overhead platforms, elevated work stations or into holes in the floor and walls.

## *WHAT CAN BE DONE TO REDUCE FALLS?*

Employers must set up the work place to prevent employees from falling off of overhead platforms, elevated work stations or into holes in the floor and walls. OSHA/CSA requires that fall protection be provided at elevations of four feet in general industry workplaces, five feet in shipyards, six feet in the construction industry and eight feet in longshoring operations. In addition, OSHA/CSA requires that fall protection be provided when working over dangerous equipment and machinery, regardless of the fall distance. Be sure to check with local regulations for fall protection standards and requirements.



*Harnesses*

*Body Belts & Accessories*

*Lanyards*

*Self-Retracting Lifelines*

*Anchorage Connectors*

*Confined Space Systems*

*Tool Fall Protection*

*Horizontal Lifelines*

*Ladder Climbing Systems*

*Rescue & Descent Systems*

*Roofers Fall Protection Kits/Rope Grabs/  
Roof Anchors/Guardrail Systems*

**Honeywell**

**MSA**  
The Safety Company

**3M**



## WHEN POSSIBLE FOLLOW THE HIERARCHY OF FALL SAFETY

Employers must set up the work place to prevent employees from falling off of overhead platforms, elevated work stations or into holes in the floor and walls. Use these four levels of control to reduce potential fall incidents.

*Fall Arrest*

*Fall Restraint*

*Passive Fall Protection*

*Elimination or Substitution*



The U.S. Department of Labor (DOL) lists falls as one of the leading causes of traumatic occupational death, accounting for 8% of all occupational fatalities from trauma.



# GET THE RIGHT SOLUTIONS FOR YOUR APPLICATION

## APPLICATIONS

Any application where the lifeline may come in contact with an edge or anchored below the Back Dorsal D ring.

*Construction*

*Scaffolding erection use & dismantling*

*Roof Decking & Concrete Decking*

*Bridge Assembly & Steel Erection*

*Aerial work platforms,  
scissor & boom lifts*

## THE A.B.C'S OF FALL SAFETY

### *ANCHORAGE*

The secure point of attachment for a fall-arrest device is the anchorage. The best sort of anchorage depends on the industry, the job at hand, the type of installation, and the structure available, but it must be capable of absorbing fall-arrest forces. The anchorage connector allows the system to be connected to the anchoring.

### *BODY SUPPORT*

A full-body harness provides necessary body support with straps that fasten around the user and distribute fall-arrest forces over the upper thighs, pelvis, chest and shoulders.

### *CONNECTORS*

A connector is a device that connects the user's full-body harness to an anchorage, such as a shock-absorbing lanyard or a self-retracting lifeline. The connector must be short enough to prevent the worker from reaching a fall hazard when utilised with a fall restraint device.



## CONFINED SPACE

For many workers, working in confined places poses a health and safety concern. That is why it is critical to recognise and plan appropriately for working in a confined spaces.

A confined space can be defined as an area that:

- is large enough for an employee to physically 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

Employers must thoroughly identify and assess the hazards before beginning work in restricted places in order to choose appropriate safeguards to take. It is necessary to rely on the expertise of safety and health professionals such as industrial hygienists to ensure full compliance with any applicable Federal and/or Provincial Regulations.

Before any worker enters a restricted space, procedures for confined space entry must be followed, especially if there is a reasonably anticipated risk of serious injury from entering or working in the confined space.

Out of 670 confined space deaths, the most common types of hazards were atmospheric hazards & loose materials.

<https://ohsonline.com/articles/2018/08/01/we-must-change-the-statistics-of-confined-space-injuries-and-fatalities.aspx>

## RESCUE RESPONSE

Workers in confined spaces should be hooked up to equipment that can retrieve them if they are overcome by atmospheric conditions, medical episodes or any other possible scenario that disables the worker. You are required to have a plan in place for any confined space entry. Ensure that you have all the requirements for your confined space entry.

*Self Retracting Rescue Device*

*Hoists & Winches*

*Harnesses*

*Tripods/Davit Systems*

A review of confined space fatalities found that in each case there was a lack of recognition and testing, evaluation, monitoring, or a well-planned rescue.

Source OSHA [www.safetyandhealthmagazine.com/articles/10244-close-quarters](http://www.safetyandhealthmagazine.com/articles/10244-close-quarters)

## COMMON TYPES OF CONFINED SPACES

Safely handling entries and exits starts with identifying your work spaces:

*Storage tanks*

*Ductwork*

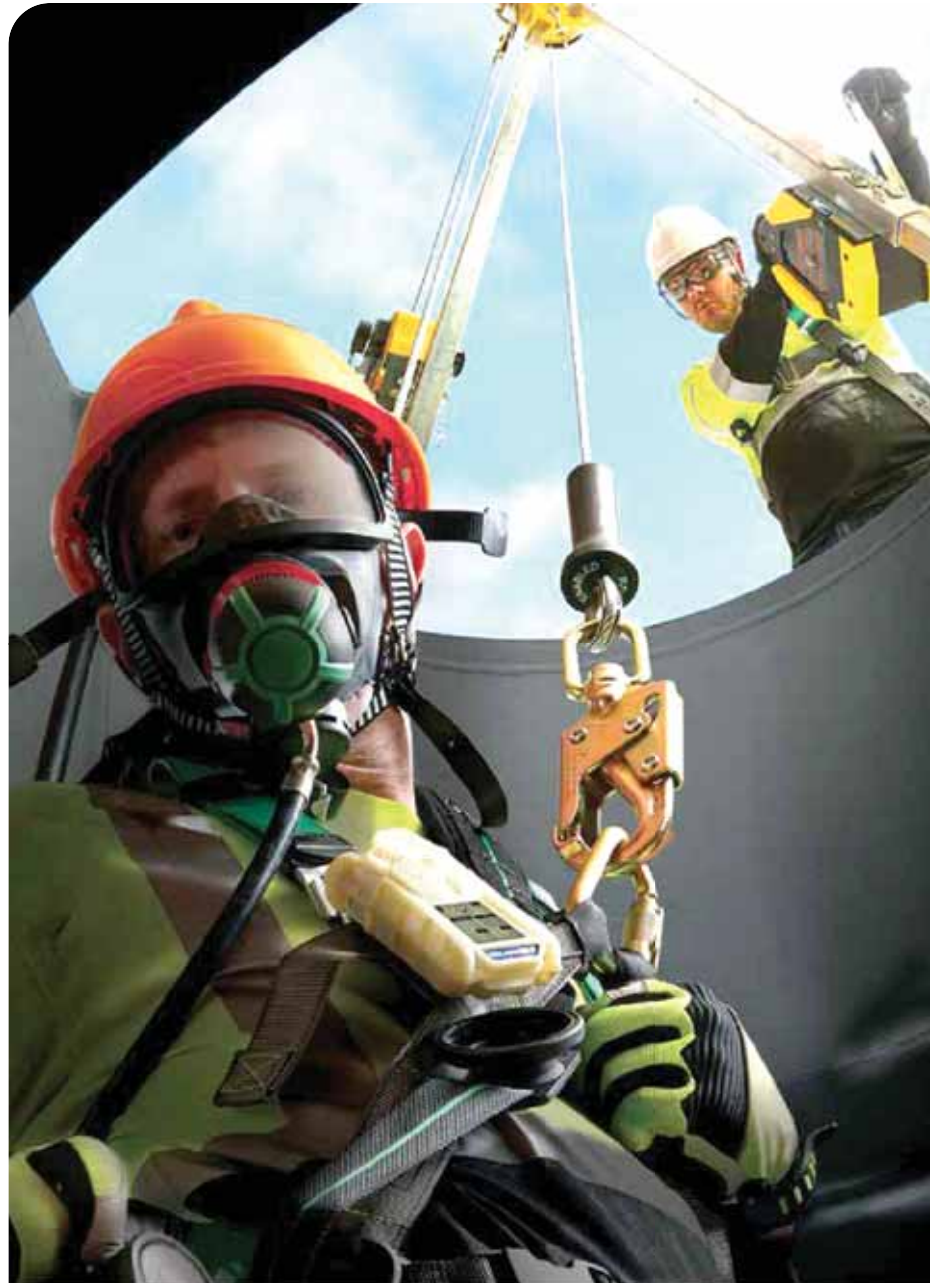
*Culverts*

*Trench box*

*Tunnels*

*Utility vaults*

*Elevator shafts*



## WHAT ARE THE MAIN CONFINED SPACE HAZARDS?

If working in a confined space is unavoidable, you must use utmost caution. The repercussions of getting into difficulty in a confined space can be fatal. Confined spaces include drains, sewers, tanks, and silos, all of which have limited openings. These are frequently places that people do not normally enter, but may be required to do so during maintenance or inspections. Here are some of the dangers that a confined space can present:

*Lack of Oxygen*

*Gases, Fumes & Vapours*

*Flooding*

*Dust*

*Fire & Explosions*

*Temperature*

*Access Restrictions*

### *CONFINED SPACE FALL PROTECTION CHECKLIST*

All confined space activity should be conducted in accordance with OSHA/CSA standards. The following questions, however, may be useful in evaluating your fall protection PPE for confined spaces:

- Is the equipment stored in a clean, dry, cool space?
- Has all fall protection equipment been inspected by a competent person in the required time frame?
- Have all workers received correct and adequate fall protection and rescue training?
- Have all personnel been properly fitted for a full-body harness?
- Does each harness have the appropriate attachment points for fall arrest, personnel-riding and rescue?
- Is a tripod or davit appropriate for the specific confined space?
- Is there enough space around the confined space opening to ensure that top-side attendants are safe from falling into the opening?
- Does the confined space have a ladder in place or is a hoist/winch needed?
- What is the maximum line length needed within the confined space to complete the task?
- Is proper equipment available for entry rescue and is it included in the rescue plan?



# WORKING AT HEIGHTS

Working at height is a high-risk activity that refers to work undertaken in any space where, if there were no safety precautions in play, a person could fall a certain distance, resulting in personal injury. In most construction activities, working at height cannot be avoided or done at ground level. Therefore, suitable control measures to address the hazards of working at height will be required.

## LEADING vs NON LEADING EDGE

A leading edge is any unprotected edge of a platform, floor, or other construction point where the elevation between the next level or the ground is greater than six feet. Leading edge work is often completed on an open side or edge of a building. In many cases, that edge is sharp, with either a very small radius or a 90 degree sharp angle. Should a crew member fall, the lifeline will come in contact with that edge. It's often the sharp edge that could cut or fray the cable or webbing, particularly on impact. But, it's also likely that the worker might sway back and forth while dangling over the edge.

SRLs or PFLs may provide a safety option for leading edge operations. The anchor point in leading edge applications sits below the D-ring attachment on the harness, often at foot level. But, it's the leading edge/sharp edge hazards that ultimately affect the design of leading edge fall protection equipment.

## FALL RESTRAINT vs FALL ARREST

A fall restraint safety system keeps you from getting close enough to the fall hazard to fall.

- Travel-restriction systems of guardrails or personal fall protection equipment used to prevent you from travelling to an edge from where you may fall

Fall arrest systems protect you after you fall by stopping the fall before you hit the surface below.

- Full body harnesses connected by lanyards or lifelines to secure anchors
- Safety nets

In choosing a fall protection systems, you should first consider installing guardrails or barriers. They provide a high degree of protection once installed properly. However, installing guardrails or barriers at a work site is not always practical – that is when you may need personal fall protection equipment.



*Commercial Construction*

*General Industry*

*Steel Mills and Foundries*

*Automotive*

*Oil and Gas*

*Petrochemical*

*Power Generation*

*Warehouses*

*Shipping*

*Municipalities*



Self Retracting Lifelines manufactured to prior CSA Z259.2.2-98 were not tested over an edge or anchor point below the back dorsal D ring to foot level tie off

Source: CSA Z259.2.2-17 Self Retracting Devices



Set-Back Distance	Lateral Edge Distance (Work Zone Limits)*						
	0 ft. (0m)	1 ft. (0.3m)	2 ft. (0.6m)	3 ft. (0.9m)	4 ft. (1.2m)	5 ft. (1.5m)	6 ft. (1.8m)
0 ft. (0m)	16' (4.9m)	16'6" (5m)	17' (5.2m)	17'7" (5.4m)	18'2" (5.5m)	19'10" (6.1m)	20' (6.1m)
1 ft. (0.3m)	15'6" (4.7m)	16' (4.9m)	16'6" (5m)	17' (5.2m)	17'7" (5.4m)	18'6" (5.6m)	19'3" (5.9m)
2 ft. (0.6m)	15' (4.6m)	15'6" (4.7m)	16' (4.9m)	16'6" (5m)	17' (5.2m)	18' (5.5m)	18'6" (5.6m)
3 ft. (0.9m)	14'6" (4.4m)	15' (4.6m)	15'6" (4.7m)	16' (4.9m)	16'6" (5m)	17' (5.2m)	17'6" (5.3m)
4 ft. (1.2m)	14' (4.3m)	14'6" (4.4m)	15' (4.6m)	15'6" (4.7m)	16' (4.9m)	16'6" (5m)	17' (5.2m)

\*Minimum fall clearance required for users up to 310lbs. (140.6kg)

# ENGINEERED SOLUTIONS

Innovative Fall Protection Inc. specializes in design, engineering, installation and re-certification of fall protection systems. With over 50 combined years of experience, we are the trusted source for all your fall protection needs. With the help of our designers, engineers, installers, trainers and fabricators your project will be solved on time and on budget. From conception to completion, it all starts with the site specific consultation all the way through design, engineering, installation and training.

## *CUSTOM ENGINEERED SOLUTIONS*

Each application offers its own set of challenges and knowing how to solve is where IFP shines. The solutions we provide are designed and engineered on a case by case basis, making us "true" experts in custom designed fall protection solutions. Be assured that we'll find the solution to match the situation given our tried and tested process.

*Identify hazards*

*Create multiple concepts/options*

*Provide custom designed solutions*

*Install with minimum disruption to production/operations*

*Provide engineered drawings and user manuals*

*Maximize safety and worker production*

*Meet and exceed all regulations, acts, standards & codes*



**INNOVATIVE**  
**FALL PROTECTION**  
"YOUR LIFELINE TO SAFETY"

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## INDUSTRY SOLUTIONS

With so many environments, applications and situations, there's no such thing as a one-size-fits-all engineered solution. IFP experts can find the right solution to meet any application needs:

*Roof Anchors*

*Commercial Buildings*

*Horizontal Lifelines*

*Industrial*

*Vertical Systems*

*Towers and Ladders*

*Temporary Systems*

*Modular Buildings*

*Freestanding Safetyrail*

*Non Penetrating Anchors*

*Railcar, Trucking*

*Transportation*

*Walkways, Crossovers*

*Custom Fabrication*

*Portable Systems*

*Mining, Aircraft*

*Unique Applications*

*Solar, Wind Power*

*Confined Space*

*Rescue Applications*



# CUSTOM FALL PROTECTION FOR ANY APPLICATION



From conception to completion –  
consult, design, supply, engineer, install,  
training and re-certification,  
IFP has you covered!



## SERVICE. RENTAL. EXPERTISE.

When you partner with Concept Controls, you get more than a distributor. You get a safety partner who's always one short phone call away to provide the support and expertise you need to stay safe and get the job done. Concept Controls take servicing customers equipment very seriously. Customers rely on Concept Controls for exceptional standards in equipment service and support. Second-best just isn't an option when it comes to protecting workers.

### *SERVICING & RECERTIFICATION ON WHAT WE SELL*

You've made an investment in your worker safety. This means regularly servicing and inspecting equipment, to prevent issues and corrected before they turn into costly repairs, or worse. Recertification ensures that your safety equipment follows all local legislation requirements. Regular scheduled service programs prolongs the life of the equipment, while effectively protecting the most valuable asset, your workers.

### *WHEN BUYING ISN'T AN OPTION, RENT*

Concept Controls knows that owning fall protection equipment can be a big investment so, we offer a full line of rental equipment for any application. For equipment needed on a one-time project, or while equipment is being serviced or repaired, talk to the experts about rental options to get the job done on budget and safely.

Only need a specialty component like a SRL, winch, or a davit arm? Need a full turn-key engineered solution? We've have you covered with our strong relationships with the top fall protection manufactures; Honeywell, MSA, 3M, Tough Built and Innovative Fall Protection. We can provide manufacturer specific components to match the products you already have and stay compliant.



RENTAL

+



SERVICE

+



INSPECT

+



DELIVERY