

Overview

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.

Any time a worker is at a height of 4 ft. or more the worker is at risk and needs to be protected. Fall protection must be provided at 4 ft. in general industry (OSHA 28CFR1910), 5 ft. in maritime (OSHA 29CFR1915 and 29CFR1918) and 6 ft. in construction (OSHA 29CFR1926).

Regardless of the fall distance, fall protection must be provided when working over dangerous equipment and machinery. Identifying fall hazards and deciding how best to protect workers is the first step in reducing or eliminating fall hazards.

Categories of Fall Protection

Fall protection requirements vary depending on the type of task being performed and the industry involved. There are five basic categories or situations that call for fall protection:



Example of Fall-Arrest System

1. Fall-Arrest – Fall-arrest systems are typically used to protect workers when they are 6 ft. or more above the ground. Typical fall-arrest applications are steel erection, suspended platform activities and elevated maintenance work.



Example of Work-Positioning System

2. Work-Positioning – Work-positioning systems will hold and maintain a worker at a specific work location, limiting any free fall to 2 ft. or less. Rebar tying and concrete wall-form work are typical applications.

3. Restraint – Restraint systems prevent a worker from reaching an area where a free fall could occur. Leading edge roof work typically calls for a restraint system.



Example of Restraint System

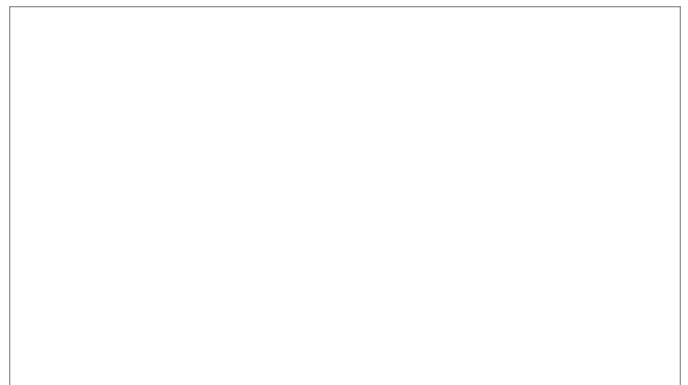
4. Suspension – A suspension system supports and holds a worker without any possibility of free fall while the worker is being raised or lowered. Boatswain's chair jobs such as painting or window washing are common examples.

5. Rescue – Rescue systems are designed to raise or lower a worker to safety in an emergency without any possibility of free fall. Rescue systems are typically used in confined space work or anywhere where a worker may fall or become incapacitated.



Example of Suspension System (Left) and Rescue System (Right)

(1 of 2)



The ABCs of Fall-Arrest Systems

Fall protection need not be complicated. In fact the basics of every personal fall-arrest system are as simple as A, B, C.



A – Anchorage

Anchorage

Anchorage is the secure point of attachment for a fall-arrest system. The appropriate type of anchorage varies by industry, the job being performed, the type of installation, and the structure available, but it must be able to withstand fall-arrest forces. The anchorage connector provides a means of attaching the system to the anchorage.

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

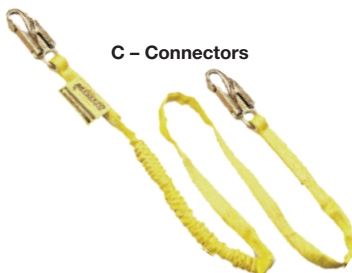


B – Body Support

Personal Fall Arrest System

Three key components of the Personal Fall Arrest System (PFAS) must be in place and properly used to provide maximum worker protection.

Individually these components will not provide protection from a fall. However, when used properly and in conjunction with each other, they form a Personal Fall Arrest System that becomes vitally important for safety on the job site.



C – Connectors