

# ABCs OF PERSONAL FALL ARREST SYSTEMS

## CONNECTING DEVICES

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Working at height can be an extremely dangerous part of your job. Falls are a common form of workplace accidents, so it is important that employees utilize proper protection when working at heights.

When not using rigid fall protection, such as a railing, employees can use personal fall arrest systems for safety. Fall arrest systems are complicated, but generally consist of three different elements: anchorages, body harnesses and connecting devices.

### "C" is for Connecting Devices

In the ABCs of fall protection, the "C" refers to connecting devices and, when talking about connecting devices, typically we are referring to lanyards.

Lanyards are pieces of equipment used to connect the body harness being worn by a worker to the anchorage that can catch and support their weight in the event of a fall.

When selecting connecting devices, be certain that they are compatible with the other parts of the fall arrest system. Other key points to remember regarding connecting devices include:

- Limit the maximum possible force on a worker to 1,800 pounds.
- Workers should not be able to fall more than 6 feet or contact a lower level before being caught.
- If used, a deceleration device should not extend more than 3 ½ feet.
- Snaphooks must be a locking type and be designed so that they will not disengage.

### Shock-absorbing Lanyards

One of the most common types of lanyards used in fall arrest systems are shock-absorbing lanyards. This type of connecting device can vary in length and live up to their name in that the lanyard is designed to stretch as it receives the worker's falling weight, allowing the fall to be broken in a controlled and gradual manner. Shock-absorbing lanyards must have one end connected to the D-ring on the body harness and the other to the anchorage; they cannot be connected to each other.

### Self-retracting Lanyards

Self-retracting lanyards (SRLs) are usually much longer than traditional lanyards and are somewhat unique in how they operate. SRLs allow attached workers to move about freely by extracting more length as necessary. SRLs get their name from the security that the line is not able to become slack and will automatically retract to create consistent, slight tension. In the event that the line is extracted too rapidly, such as when a worker falls, the lanyard locks in place and does not allow further extension. An SRL may sometimes operate better as a fall prevention device than as a fall arrest system.

### Positioning Lanyards

Positioning lanyards are fixed in length and are not meant to be used as part of a fall arrest system. They are more suited to keeping workers in place, rather than stopping a fall. Positioning lanyards are often used for tasks such as rebar assembly, pour-in-place concrete walls or while working in boom lifts. They

can be made from a variety of different materials, including webbing, cables, ropes or chains.

## Inspections and Selections

Being certain that your fall arrest system is in good working order is of critical importance, as even a slight defect in just one piece can result in serious injury.

Make sure that you are checking connecting devices before each and every use to find any possible problems. Damaged pieces must be removed from service. When inspecting equipment, keep an eye out for these possible issues:

- Frayed, worn or cut webbing
- Damaged or misshapen hardware
- Missing parts
- Ripped stitching

It is of vital importance that a qualified fall protection individual is involved in the selection of connecting devices and other components of fall arrest systems. Fall protection systems are only reliable if every single piece is compatible, in good condition and used properly.

## Our Commitment to You

Your safety is our first priority at . If you have any questions or concerns about connecting devices, personal fall arrest systems or fall protection in general, speak to your supervisor or a qualified fall protection employee

