Fall Protection & Ladder Safety

Airswift Safety Training

Safety Specialist

Agenda

- Why Fall Protection?
- What is Fall Protection?
- When is Fall Protection required?
- It’s a Fall Protection SYSTEM
- ABC’s of Fall Protection
- Equipment Inspection
- What is Scaffold
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Why Fall Protection?

FALLS ARE THE LEADING CAUSE OF WORK FATALITIES

FALLS CAN BE PREVENTED!

Fall Protection is required if working at heights of:

General Industry
4 feet or more

Construction Industry
6 feet or more

What is Fall Protection?

A **personal fall arrest system** is designed to safely stop a fall before the worker strikes a lower level. It has three major components:

A. An **anchorage** to which the lanyard's snap hook is attached.

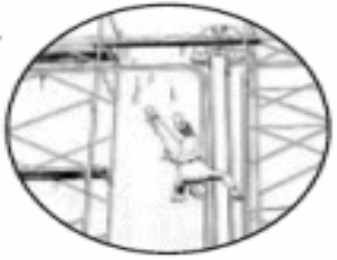
B. A full-body **harness** worn by the worker.

C. A connector, such as a **lanyard** or **lifeline,** linking the harness to the anchorage.

Personal fall arrest systems typically use a shock-absorbing lanyard, a self-retracting lifeline, or a deceleration device.

Fall Protection Tips

- Identify all potential tripping and fall hazards before work starts.
- Look for fall hazards such as unprotected floor openings/edges, shafts, skylights, stairwells, and roof openings/edges.
- Inspect fall protection equipment for defects before use.
- Select, wear, and use fall protection equipment appropriate for the task.
- Secure and stabilize all ladders before climbing them.
- Never stand on the top rung/step of a ladder.
- Use handrails when you go up or down stairs.
- Practice good housekeeping. Keep cords, welding leads and air hoses out of walkways or adjacent work areas.



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TRUSTED WORLDWIDE

When is Fall Protection required?

Employers must provide

SAFE, SECURE FALL PROTECTION

where workers are exposed to falls from the following heights:

4' in General Industry Workplaces

5' in Shipyards

6' in the Construction Industry

8' in Longshore Operations

Vertical Lifelines

or lanyards must have:

5k

a minimum breaking strength of 5,000 pounds

be protected against being cut or abraded.

Each employee MUST be attached to:

- a separate vertical lifeline
- anchor points capable of supporting at least **5,000 lbs** per employee attached

Employees working on a surface with an

Unprotected Side/Edge that's SIX FEET or more

above a lower level must use fall protection

6'+

Guardrails

Safety nets

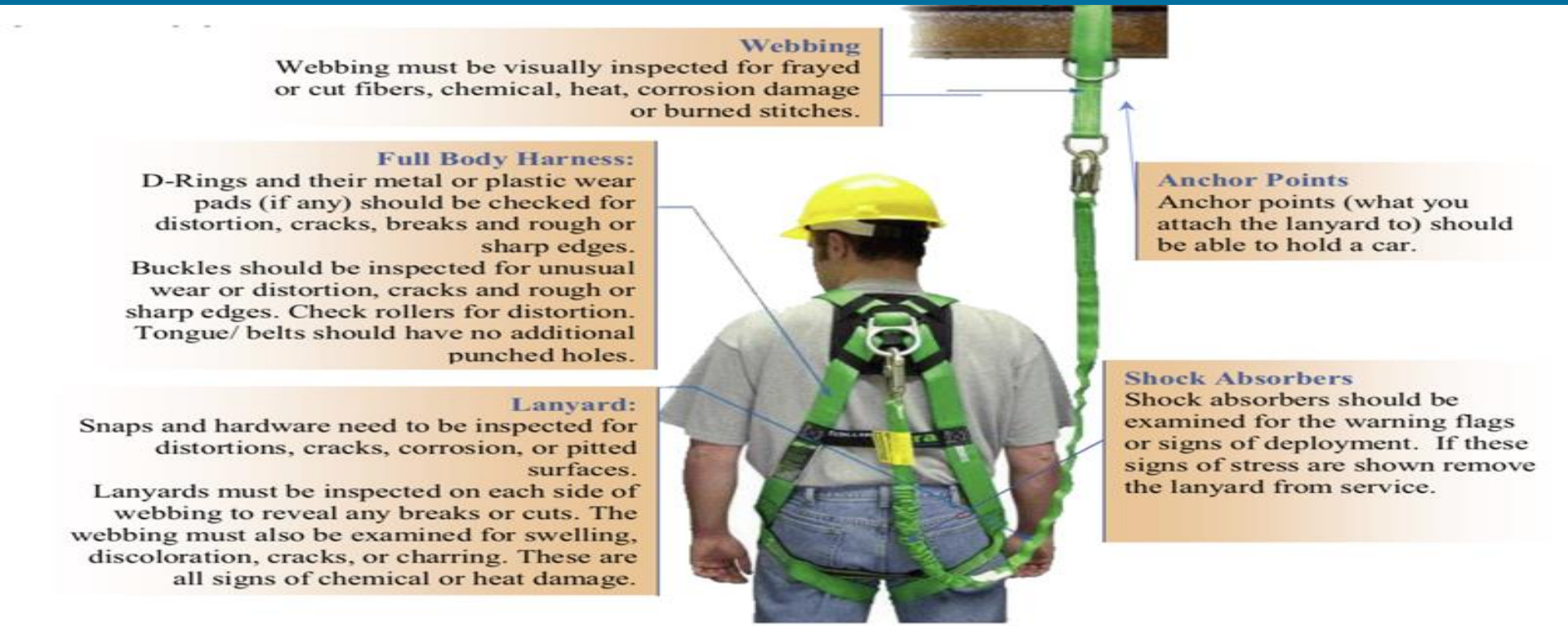
Personal fall arrest systems

It's a Fall Protection **System**

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 protection system that becomes a vital part of your safety.

Equipment Inspection

All parts of a fall arrest system must be inspected before each use and on a routine basis. **Remove from use if damaged!**



Webbing
Webbing must be visually inspected for frayed or cut fibers, chemical, heat, corrosion damage or burned stitches.

Full Body Harness:
D-Rings and their metal or plastic wear pads (if any) should be checked for distortion, cracks, breaks and rough or sharp edges.
Buckles should be inspected for unusual wear or distortion, cracks and rough or sharp edges. Check rollers for distortion. Tongue/ belts should have no additional punched holes.

Lanyard:
Snaps and hardware need to be inspected for distortions, cracks, corrosion, or pitted surfaces.
Lanyards must be inspected on each side of webbing to reveal any breaks or cuts. The webbing must also be examined for swelling, discoloration, cracks, or charring. These are all signs of chemical or heat damage.

Anchor Points
Anchor points (what you attach the lanyard to) should be able to hold a car.

Shock Absorbers
Shock absorbers should be examined for the warning flags or signs of deployment. If these signs of stress are shown remove the lanyard from service.

Storage:
The equipment should be stored in a where it is not damaged by other tools or equipment.
Replacement:
If your harness or lanyard is damaged, or does not pass a regular inspection, ask your supervisor or a safety person to look at it and request a new one.

Scaffold

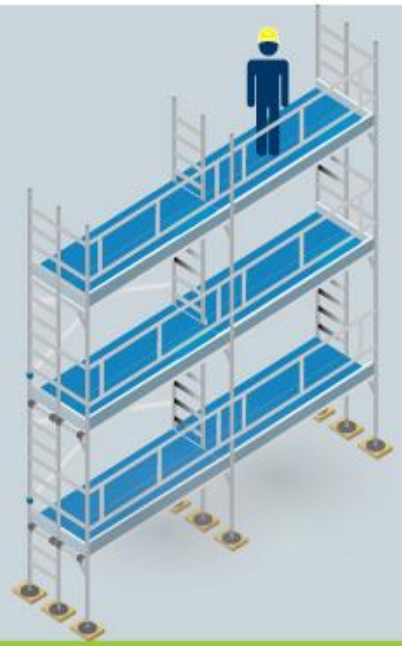
OSHA'S TOP 5 CITED SCAFFOLDING VIOLATIONS

STANDARD	TOTAL VIOLATIONS	OSHA'S TOP 10 RANKING
1926.451	4,681	#3

5

1926.451 (c) (2)
Adequate firm foundation for supported scaffold poles, legs, posts frames and uprights

266 VIOLATIONS



Insufficient support can cause a scaffold to collapse, not only injuring the workers on the scaffold, but the people below as well.

Supported scaffolds should bear on both base plates and mud sills or other adequate firm foundation.

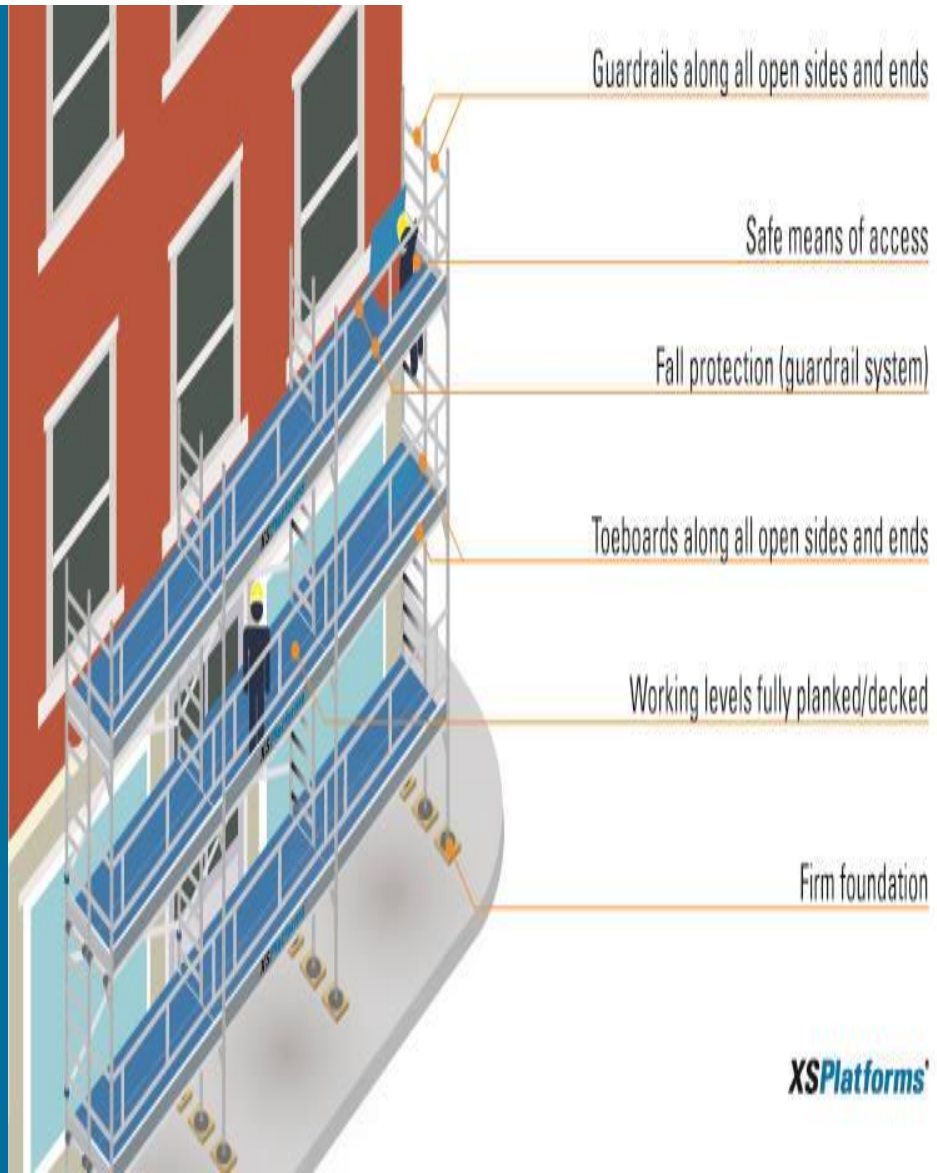
Using Scaffold

1. Inspect scaffolds daily before you trust your life to them. Check guardrails, connectors, fastenings, footings, tie-ins, bracing and planking. Damaged scaffolds must be removed from service immediately.
2. Do not climb cross-bracing as a means of access.
3. Don’t stockpile materials on scaffolds. Remove all tools and leftover materials at the end of the day.
4. Never overload scaffolds. Pile necessary materials over ledger and bearer points.
5. Use access ladders provided for each scaffold. Climbing off the end frames is prohibited.
6. In winter, clear platforms of all ice and snow before using. Sand wet planking for sure footing.
7. Never ‘ride’ a (mobile) rolling scaffold.
8. Only use a rolling scaffold on level surfaces, and lock caster breaks when not in motion. When moving, make certain the route is clear of holes and overhead obstructions. Secure all loose materials.
9. Use personal fall protection equipment tied off to an anchorage point from a lanyard, lifeline and/or deceleration device, when working from floats, needle beam scaffolds, or suspended scaffolds.
10. Protect ropes and safety lines from burning or welding.

Scaffold Inspections

Scaffold safety includes:-

- A competent person must inspect the scaffold before use.
- Make sure workers have proper access to scaffolds.
- Do not climb over cross braces.
- Do not use a ladder on a scaffold.

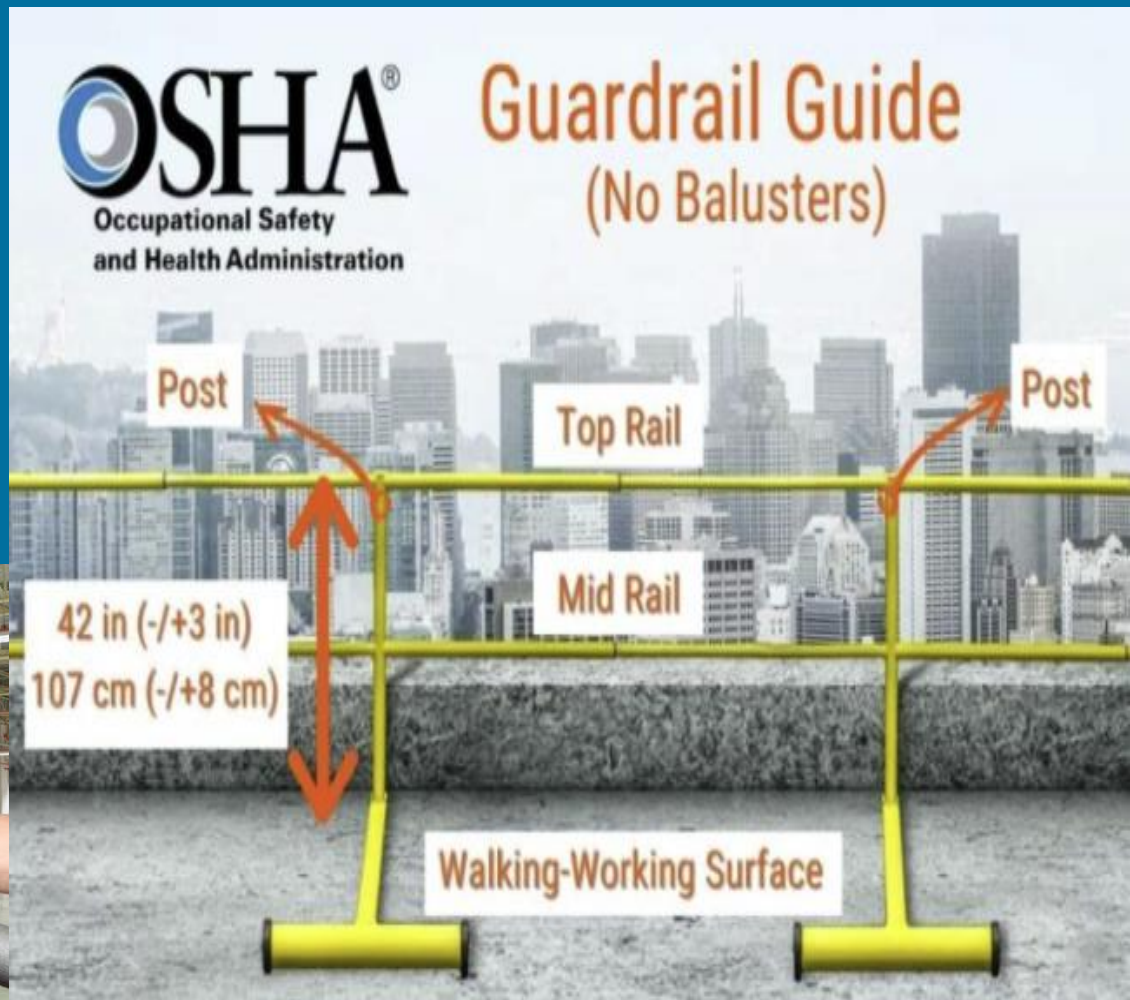


Guardrail Systems

Guardrail systems are barriers erected to prevent workers from falling to lower levels.

Types of guardrails include:

- Temporary guardrails
- Guardrails for scaffolds and aerial work platforms
- Stair rails and handrails



Falling Objects

Tools, equipment and materials can also become falling objects.

Protection from falling objects includes:-

- Toeboards
- Barricades
- Canopies
- Hard Hats
- Lanyards

Ladder Safety

Ladder Safety and How It Affects Everyone

THE NUMBERS SPEAK FOR THEMSELVES

+137

ladder injuries every day*

113

deaths caused by falls each year*

6-10 ft.

The **most common ladder falls** happen between 6 and 10 feet off the ground

WHETHER YOU'RE USING A LADDER AT HOME OR AT WORK, THESE NUMBERS AFFECT **YOU**.

2 most **common ladder accidents** include**:

1. **Missing the last step when climbing down**
2. **Overreaching**

Ladder Inspection

SAFETY BEFORE THE FIRST STEP

Are you taking the time to properly inspect your ladders before starting to work? A thorough inspection must be made when the ladder is initially purchased and each time it is placed into service. Here are a few reminders of what you should be inspecting:

- Locks and spreader braces
- Steps and rungs
- Rails
- Connections and fasteners
- Safety shoes
- Ropes and pulleys

Here are some steps to follow before taking your first step onto the ladder:

- Thoroughly inspect the ladder to ensure it is in good working condition.
- Clean the ladder feet as well as the climbing and gripping surfaces.
- Read the safety information label(s) on the ladder.
- Confirm that the ground where the ladder is set-up is firm and level, or use approved accessories, such as ladder levelers.
- Ensure that any surrounding doors are blocked from opening, locked or properly guarded. • If you’re using a ladder outdoors, ensure that the weather is safe for ladder use.
- Clean the soles of your shoes to maximize traction and avoid slipping.
- Ensure that you are not tired, dizzy or prone to losing your balance before using the ladder.
- • Use towlines, a tool belt or an assistant to carry materials so that your hands are free when climbing.

Safety At The Top

Just as it's important to pay attention while climbing and descending a ladder, it's equally important to follow the 3 steps below:-

Don't stand on the top step or top cap. If you feel the need to stand on the top cap of your ladder to reach your project, you are not using the right ladder for the job. Standing on the top step, top cap, or straddling the top of the ladder is very dangerous and can easily lead to a loss of balance. It is unsafe to use a ladder that is too long or too short.

Maintain Three Points of Contact. When working at the top of a ladder — just as you do when you are climbing — it is important to maintain three points of contact with the ladder. When working, this typically means having both feet firmly planted on the ladder, with a hand or your knees resting on the ladder for stability.

Don't overreach. When you don't maintain three points of contact, you are more likely to overreach. When you overreach, your ladder is more likely to lose balance. You should always keep the center of your stomach between the ladder side rails.

Choosing Your Ladder

One of the most common mistakes made by ladder users is choosing the wrong ladder for the job.

Consider your work environment when choosing your ladder. For example, if you're working near sources of electricity, do not use a metal/aluminum ladder. Evaluate the surface on which the ladder will be resting. Is it uneven? Consider if there are any obstructions in the path of the climb. Your environment will also help you determine the type of ladder you need for the task — self-supporting stepladder or non-self-supporting single or extension ladder.

Consider the length of ladder you need. It is unsafe to use a ladder that is too long or too short. When using a step ladder, for example, it is unsafe to stand on the top cap as it increases the likelihood of losing your balance. Likewise, when using an extension ladder, the top three rungs are not to be used for climbing. An extension ladder is too long if it extends more than 3 feet beyond the upper support point, as it can act like a lever and cause the base of the ladder to move or slide out.

Pay attention to the Duty Rating of your ladder. The Duty Rating is the total amount of weight your ladder will support. A taller ladder does not equate to a higher weight rating.

Choosing Your Ladder

Here is the simple calculation for determining the Duty Rating needed for the job at hand:

Your Weight + Weight of Your Clothing and Protective Equipment + Weight of Tools and Supplies Being Used = **Duty Rating**

Worker Responsibility

- Do not work at heights unless you are trained to do so
- Know the hazards of working at heights
- Inspect fall arrest equipment and ladders before use
- Wear fall protection when required
- Be aware of chemicals that can damage equipment
- Check your surroundings for hazards

QR Code/Training Roster & Quiz

Please complete the Training Roster and short quiz by either clicking the link below or scanning the QR code. Thank you!

https://forms.office.com/Pages/ResponsePage.aspx?id=-8h9YWiPvEqU-HwIfqicf-aZYoT3noVOrngpiHPPQkFUN0VCQzA0REU4TEdENU00NFNVWFVJSE9PUC4u

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