

TECHNICAL BRIEF FOR ANSI/ASSP A10.32-2023

An Overview of the Voluntary Consensus Standard:
Personal Fall Protection Systems Used in Construction
and Demolition Operations

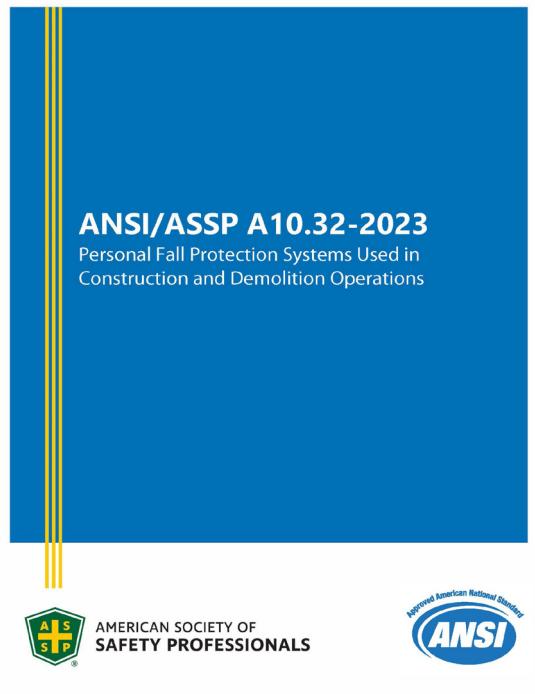


AMERICAN SOCIETY OF
SAFETY PROFESSIONALS

STANDARDS

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INTRODUCTION

On March 6, 2023 the American National Standards Institute (ANSI) announced the approval of the revised A10.32 voluntary consensus safety standard titled:

ANSI/ASSP A10.32-2023
PERSONAL FALL PROTECTION SYSTEMS USED IN
CONSTRUCTION AND DEMOLITION OPERATIONS

The original version of the A10.32 standard was approved on May 3, 2004. The standard was reaffirmed in 2012, and then approved as a revised/new standard in 2023. A10.32 is viewed as a replacement for the A10.14 standard. Past versions of the A10.14 standard were released in 1975 and 1991. A10.14 has not been an approved American National Standard for decades.

This standard is one of a series of safety standards that have been formulated by the Accredited Standards Committee on Safety in Construction and Demolition Operations, A10. ANSI requires the secretariat of a standard revise or reaffirm the standard within five to ten years of publication.





THE A10.32-2023 **STANDARD**



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GENERAL INFORMATION AND DEFINITIONS



Section 1 - Scope, Purpose, Application, Exceptions

1. General

1.1 Scope

This standard establishes safety requirements and performance criteria for active fall protection systems and their associated equipment used in construction and demolition. This includes guidelines for the planning, configuration, selection, installation, user training, operation, inspection and maintenance of equipment that is utilized in active fall protection systems. These systems create a personal interface with the worker via fitted equipment worn on the body while performing construction and demolition tasks at heights.

1.2 Purpose

The purpose of this standard is to provide guidance for the proper utilization of active fall protection systems and equipment such that workers are protected from falls from height while performing construction and demolition activities.

1.3 Application

1.3.1 This standard applies to the utilization of systems and equipment that perform one or more functions to protect workers from falls from heights, including (but not limited to) fall arrest, travel restraint, work positioning, climbing assistance, descent control, and emergency rescue.

1.3.2 This standard does not apply to lineman's body belts, pole straps, window washer's belts, chest-only or waist-only harnesses, sports and/or recreational climbing equipment.

1.4 Exceptions

1.4.1 This standard permits the use of alternative devices or methods of active fall protection that provide an equivalent level of protection from falls from height only for certain work tasks for which both of the following conditions apply.

1. The requirements of this standard are technically infeasible for the mitigation of a particular fall hazard.
2. No feasible alternatives are available to eliminate, guard, or protect against a particular fall hazard.

1.4.2 A qualified person shall generate a written, site-specific fall protection plan that incorporates all alternative devices or methods and includes provisions for user training and competent person supervision.

1.4.3 This standard does not preclude nor supersede the requirements contained within the following standards for while performing certain tasks and/or utilizing certain access equipment at heights.

1.4.3.1 ANSI/ASSP A10.8, Scaffolding Safety Requirements

1.4.3.2 ANSI/ASSP A10.13, Safety Requirements for Steel Erection



Section 1 Context / Section 2 - Definitions

1.5 Context

1.5.1 This standard is intended to be utilized in conjunction with the fall protection standards contained in the Code of Federal Regulations Title 29- Labor, Part 1926- Safety and Health Regulations for Construction, Subpart M- Fall Protection as promulgated by the U.S. Department of Labor, Occupational Safety and Health Administration (OSHA), or the equivalent OSHA-approved State Plan.

1.5.2 This standard does not preclude nor supersede the fall protection standards required by legal statutes and/or regulatory bodies at the federal, state, county and municipal levels as applicable to the location, nature and industry of the construction and demolition project.

2. Definitions

Accidental Disengagement. A process whereby a connector unintentionally comes free from the component to which it is attached.

Activation Distance. The distance traveled by a fall arrestor or the amount of line payed out by a self-retracting lanyard (SRL) from the point of onset of a fall to the point where the fall arrestor or self-retracting lifeline begins to apply a braking or stopping force.

Active Fall Protection. A fall protection system that requires authorized persons to wear or use fall protection equipment and that requires fall protection training.

Anchorage. A secure connecting point or a terminating component of a fall protection system, rescue system, or scaffold system, which is capable of safely supporting the forces applied to the system by a fall protection system or anchorage subsystem.

Anchorage Connector. A component or subsystem that functions as an interface between the anchorage and a fall protection, work positioning, rope access or rescue system for the purpose of coupling the system to the anchorage.

Arrest Distance. The total vertical distance required to arrest a fall. The arrest distance includes the deceleration distance and activation distance.

Arresting Force. The force produced by the fall arrest system on the human body when arresting a fall.

Authorized Person. For purposes of this standard, a person assigned by the employer to perform duties at a location where the person will be exposed to a fall hazard.

Body Belt (Safety Belt or Waist Belt). A body support secured about the waist used for work positioning or travel restraint. Body belts are not for use in fall arrest.

Buckle. A connector for attaching a strap or webbing segment to either another strap or webbing segment or back to itself.

Capacity. The maximum weight that a component, system or subsystem is designed to be used.



Section 2 - Definitions

Carabiner. A connector generally comprised of a trapezoidal or oval shaped body with a closed gate or similar arrangement that may be opened to attach another object and, when released, automatically closes to retain the object. Only self-locking carabiners shall be used as part of a personal fall arrest system.

Carabiner, Self-Locking. Automatic-locking type (required by this standard) with a self-closing and self-locking gate which remains closed and locked until intentionally unlocked and opened for connection or disconnection.

Certification [Personal Fall Protection]. The act of attesting in writing that the criteria established by these standards or some other designated standards have been met.

Certified Anchorage. An anchorage for fall arrest, positioning, restraint or rescue systems that a qualified person certifies to be capable of supporting the potential fall forces that could be encountered during a fall or that meet the criteria for a certified anchorage prescribed in this standard.

Climbing System. A combination of equipment that permits the user to use both hands freely while being tied off to a deceleration device while climbing fixed structures.

Competent Person. One who is capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them.

Component. An element or integral assembly of interconnected elements intended to perform one function in the system.

Connector [Fall Protection Equipment]. A component or element that is used to couple parts of the system together. A connector may be an independent component (such as a carabiner) of a system, or it may be an integral element of a component, hybrid component, subsystem or system (such as a buckle or D-ring sewn into a body support, or a snaphook spliced or sewn into a lanyard or self-retracting lanyard). Connectors are sometimes referred to as hardware.

D-Ring. An integral "D" shaped connector typically used in harnesses, lanyards, energy absorbers, lifelines, and anchorage connectors as an integral connector at an attachment point.

Deceleration Device. Any mechanism that serves to dissipate energy during a fall.

Deceleration Distance. The vertical distance between the user's fall arrest attachment at the onset of fall arrest forces during a fall, and after the fall arrest attachment comes to a complete stop.

Descent Control Device. An automatic or manually controlled lowering device for escape or rescue.

Employer [Personal Fall Protection]. Any corporation, partnership, proprietorship, government agency, or other organization that has employees.

Energy (Shock) Absorber. A component whose primary function is to dissipate energy and limit deceleration forces which the system imposes on the body during fall arrest.



Section 2 - Definitions

Energy Absorber, Horizontal Lifeline. An energy absorber that is attached to one of the end anchorages or anchorage connectors of a horizontal lifeline subsystem.

Energy Absorber, Personal. An energy absorber that is attached to a harness.

Energy Absorber, Vertical Lifeline. An energy absorber that is attached to the top anchorage or anchorage connector of a vertical lifeline subsystem.

Equipment. A general term referring to components, subsystems or systems, in any combination, singular or plural.

Fall Arrest. The action or event of stopping a free fall or the instant where the downward free fall has been stopped.

Fall Clearance. The distance from a specified reference point, such as the working platform or anchorage of a fall arrest system, to the lower level that a worker might encounter during a fall.

Fall Clearance Requirement. The distance below an authorized person that must remain clear of obstructions in order to ensure that the authorized person does not make contact with any objects that would cause injury in the event of a fall. This distance includes the total fall distance.

Fall Edge. The unprotected edge of a walking/working surface or an unprotected opening from which a person could fall to a lower surface or into a hazard.

Fall Protection. Any equipment, device or system that prevents an accidental fall from elevation or that mitigates the effect of such a fall.

Fall Restraint. See "Restraint or Travel Restraint System".

Force Factor. The ratio of peak arresting force of a rigid mass to a human body of the same weight, both falling under identical conditions.

Free Fall. The act of falling before the fall protection system begins to apply forces to arrest the fall.

Free-Fall Distance. The vertical distance traveled during a fall, measured from the onset of a fall from a walking working surface to the point at which the fall protection system begins to arrest the fall. This distance excludes deceleration distance and the elongation of a lifeline or lanyard, but includes any distance that a deceleration device slides before engaging or the distance that a self-retracting lifeline or lanyard extends before fall arrest forces are applied.

Full Body Harness. Straps that are secured about a worker in a manner that distributes the arresting forces over at least the thighs, shoulders, and pelvis with provisions for attaching a lanyard, lifeline or deceleration device.

Guardrail System. A passive system of horizontal rails and vertical posts to prevent workers from falling to lower levels.

Hardware. A rigid component or element that is used to couple parts of the system together.



Section 2 - Definitions

Horizontal Lifeline. A component of a horizontal lifeline subsystem, consisting of a flexible line with connectors or other coupling means at both ends for securing it horizontally between two anchorages or anchorage connectors.

Inspection. An examination of equipment or systems to assess conformance to a particular standard.

Integral. Not removable from the component, system or subsystem without destroying or mutilating any element or without use of a special tool.

Lanyard. A component consisting of a flexible rope, wire rope or strap, which typically has a connector at each end for connecting to the body support and to a fall arrestor, energy absorber, anchorage connector or anchorage.

Leading Edge. The edge of a floor, roof, or formwork for a floor or other walking/working surface (such as the deck) which changes location as additional floor, roof, decking, or formwork sections are placed, formed, or constructed. A leading edge is considered to be an “unprotected side and edge” during periods when it is not actively and continuously under construction.

Lifeline. A component of a fall-protection system consisting of a flexible line designed to hang either vertically (vertical lifeline), or for connection to anchorages or anchorage connectors at both ends to span horizontally (horizontal lifeline).

Maximum Arrest Force. The peak force measured by the test instrumentation during arrest of the test weight in the dynamic tests set forth in the ANSI/ASSP Z359 Fall Protection Code.

Non-Certified Fall Arrest Anchorage. An anchorage not based on a qualified person calculation that a competent person has selected to be capable of supporting the predetermined anchorage forces as prescribed in this standard.

Passive Fall Protection System. Fall protection that does not require the wearing or use of personal fall protection equipment. Examples of passive fall protection systems include safety nets, guardrail systems or other means that protect an authorized person from a fall hazard.

Personal Fall Arrest System (PFAS). A system used to arrest an employee in a fall from a working level. A personal fall-arrest system consists of an anchorage, connectors, and a full body harness and may include a lanyard, deceleration device, lifeline, or suitable combination of these.

Positioning. The act of supporting the body with a positioning system for the purpose of working with hands free.

Positioning Lanyard. A lanyard used to transfer forces from a body support to an anchorage or anchorage connector in a positioning system. A positioning system can enable an authorized person to have both hands free for work.

Qualified Person. One who, by possession of a recognized degree, certificate, or professional standing, or who by extensive knowledge, training, and experience, has successfully demonstrated the ability to solve or resolve problems relating to the subject matter, the work, or the project.

Qualified Person Trainer. A qualified person who meets the requirements of this standard and who is also qualified to provide fall protection training.



Section 2 - Definitions

Registered Professional Engineer. A licensed/registered professional engineer with the expertise in the discipline applicable to the scope of work.

Restraint. See "Travel Restraint System".

Rope (or Strap) Adjuster. A mechanical means of readily moving a vertical line attachment or changing the position of an intermediate anchorage device between an anchorage (connector) and a body support while loaded with the authorized person's weight or partial weight while leaning. A rope adjuster may be a manual rope grab type device or a descent control device, which provides an adjustment feature. An automatic rope grab is typically used as a fall arrestor for a vertical lifeline, which can act as back-up fall protection to a work positioning system or travel restraint system in fall hazard zone.

Rope, Synthetic. A construction of bundled manmade yarns, fibers, or filaments forming a strong flexible line.

Rope, Wire. A plurality of drawn wires forming strands laid helically over an axis or core.

Safety Factor. The ratio, allowed for in design, between the ultimate breaking strength of a member, material, structure, or equipment and the actual working stress of safe permissible load placed on it during ordinary use.

Self-Retracting Lifeline/Lanyard (SRL). A device containing a drum-wound line that automatically locks at the onset of a fall to arrest the user, but that automatically pays out from and retracts onto the drum during normal movement of the person to whom the line is attached. After onset of a fall, the device automatically locks the drum and arrests the fall.

Service Life. The life of the product beginning from the date of first use.

Shall. Mandatory.

Should. Recommended.

Snaphook. A connector consisting of a hook-shaped body with a normally closed gate or similar arrangement that may be opened to permit the hook to receive an object and, when released, automatically closes to retain the object. Only self-locking snaphooks shall be used as part of a personal fall arrest system.

Snaphook, Self-Locking. Automatic-locking type (required by this standard) with a self-closing and self-locking gate which remains closed and locked until intentionally unlocked and opened for connection or disconnection.

Swing Fall. A pendulum-like motion that occurs during and/or after a vertical fall. A swing fall results when an authorized person begins a fall from a position that is located horizontally away from a fixed anchorage.

Task Hazard Analysis. The process of analyzing work tasks to identify potential hazards and determine how to address them so that the task can be completed safely. The process includes the evaluation of the task, affected workers, tools, materials, equipment and identification of appropriate hazard controls. The process is also commonly referred to as an Activity Hazard Analysis or Job Hazard Analysis.



Section 2 - Definitions

Tie Off. When a user wearing personal fall protection equipment connects directly or indirectly to an anchorage. The term also means the condition of a user being connected to an anchorage.

Total Fall Distance. The total vertical distance a person falls measured from the onset of a fall to the point where the person comes to rest after the fall is stopped. Total fall distance includes free fall distance and deceleration distance, but excludes dynamic elongation.

Travel Restraint System. A combination of anchorage, anchorage connector, lanyard (or other means of connection) and body support that limits travel in such a manner that the user is not exposed to a fall hazard.

User [Fall Protection Equipment]. A person who performs activities at heights while protected by a personal fall protection system.

Vertical Lifeline [Fall Protection Equipment]. A component, element or constituent of a lifeline subsystem consistent of a vertically suspended flexible line and along which a fall arrestor travels.

Wire. A single, continuous length of metal with a circular cross-section that is cold-drawn from rod.

Work Positioning System. An active fall protection system configured to allow an authorized person to be supported on an elevated vertical or inclined surface, and to work hands free.



Examples of OSHA Recognition of ASSP Standards

1. [Walking-Working Surfaces and Personal Protective Equipment \(Fall Protection Systems\); Proposed Rule. | Occupational Safety and Health Administration](#)
2. [Walking-Working Surfaces and Personal Protective Equipment \(Fall Protection Systems\) | Occupational Safety and Health Administration](#)
3. [OSHA Fall Protection Workbook](#)
4. [Whether OSHA will rely on ANSI Z359.1-2007](#)
5. [Design for Construction Safety - Instructor Guide](#)
6. [Fall Protection - Construction | Occupational Safety and Health Administration](#)
7. [Advisory Committee on Construction Safety and Health \(ACCSH\) Meeting Minutes](#)
8. [OSHA Field Safety and Health Management System Manual - Fall Protection](#)
9. [Standards Improvement Project--Phase IV; Final Rule | OSHA](#)
10. [Standards Improvement Project-Phase IV; Proposed Rule | OSHA](#)
11. [Handout Lifeline Components Chart](#)
12. [OSHA Federal Register - Proposed Rules](#)
13. [Advanced Rigging Instructor's Manual](#)
14. [OSHA Field Safety and Health Manual](#)
15. [Design for Construction Safety - Participant Guide](#)
16. [Cranes and Derricks in Construction; Final Rule](#)



Samples of OSHA 5a1 Citations Referencing the A10.32 Standard

	Inspection	Citation	Issuance	Report ID	Category	SIC	Establishment Name
1	316491711	01002E	05/16/2012	0352410	Falling	1761	Sandra Flores Db All Type Remodeling
2	315975748	01001C	11/30/2011	0352410	Falling	1761	Aramis Roofing LLC
3	315134247	01001A	11/24/2010	0420600	Falling	1799	Cross Construc- tion Services, Inc.
4	313106973	01001	02/17/2010	0418800	Falling	1799	Pro-Bel Usa, Inc.
5	313989410	01001	12/24/2009	0420600	Falling	1771	Trejo Stucco, Inc.



Standards Development Information

The following links provide background on voluntary consensus standards and the relationship between OSHA, ANSI and ASSP.

[ANSI Essential Requirements](#)

[ASSP's Position on Standards Development Process](#)

[Official Memorandum of Understanding Between OSHA & ANSI](#)

[Office of Management & Budget Circular OMB-A119](#)

[ASSP's Position Statement on Consensus Standards](#)

[Safeguarding: Are ANSI Standards Really Voluntary?](#)

[What's the Difference Between an OSHA Rule and an ANSI Standard?](#)

[Yeah, You Know about OSHA, but What about ANSI?](#)

[OSHA vs. ANSI: How to Up Your Safety Compliance Game](#)

[ANAB Accreditation for Occupational Health and Safety Management Systems](#)

The following podcasts explain how voluntary national consensus standards are used in regulatory settings.

ASSP Podcast Episode 3: [How Government Agencies Use Industry Consensus Standards](#) | Lauren Bauerschmidt, Senior Manager, Standards and Technical Services

ASSP Podcast Episode 1: [Industry Consensus Standards](#) | Tim Fisher, Director, Standards Development and Technical Services



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