

Glossary of Powered Access & Safety Terms

Accessories: those components which, when added to scaffolding or shoring, enhance their utility or usefulness

Accessway: a system which provides access of personnel to and from scaffold platforms

Adjustable suspension scaffold: a suspension scaffold equipped with a hoist(s) that can be operated by an employee(s) on the scaffold

Allowable load: see **Load, Allowable**

Alternating current (AC): a current which reverses in regularly recurring intervals of time and which has alternative positive and negative values, and occurring a specified number of times per second (**See Frequency**)

American National Standards Institute (ANSI): an organization which develops standard safety specifications and procedures for a wide range of industrial equipment, including ladders and scaffold. Many OSHA regulations are based on these standards. Also known as ANSI

Ampere (Amp): the unit of electric current flow. One ampere will flow when one volt is applied across a resistance of one ohm.

Anchor: a device used to secure any item of scaffold to a rigid point

Anchorage: a secure means of attachment to which the personal fall arrest system is connected

Anchored track: galvanized steel I-beams anchored to the building structure in parallel to enable a roof machine to traverse horizontally along the rooftop

Anemometer: an instrument for measuring wind velocity

Angulated roping: a method of stage suspension in which the upper wire rope sheaves or suspension points are closer to the plane of the building face than the corresponding attachment points on the stage, thus causing the platform to press against the face of the building during its vertical travel

ANSI: see **American National Standards Institute**

Approved: accepted by the authority having jurisdiction

Arresting force: the force, generated by arresting the test weight, that is transmitted through the fall arrest system components to the anchorage

Ascending: a suspended scaffold moving upward, or climbing

Authorized person: a person approved or assigned by the employer to perform a specific type of duty or to be at a specific location on the jobsite

Base: the relevant points at which a structure makes contact with its support

Base plate: a device used to distribute leg or post load over a larger area

Beam: a narrow horizontal structural load-bearing member

Beam clamp (scaffold): a device used to fasten a scaffold member to a beam flange

Beam clamp (shoring/suspended): a device used to fasten two I-beam members at their flanges when one I-beam is resting across the other I-beam flange

Birdcage (suspended scaffolds): a kink pulled through or displacement of outer wire rope strands forced into compression forming a cage

Boatswain's chair: see **Bosun's chair**

Boatswain's stand: see **Bosun's stand**

Body belt (safety belt): a strap with means both for securing it about the waist and for attaching it to a lanyard, lifeline or deceleration device; not acceptable as a fall arrest device

Body harness: a design of straps which may be secured about the employee in a manner to distribute the fall arrest forces over at least the thighs, pelvis, waist, chest and shoulders, with means for attaching it to other components of a personal fall arrest system

Bosun's chair: a suspended seat designed to accommodate one worker in a sitting position

Bosun's stand: a suspended stand designed to accommodate one worker in a standing position

Bowline: a knot used for rigging bosun's chairs, tying off to supports, making a loop for other lines to run through

Bowline on a bight: a variation of the bowline knot, tied in a bight of a rope; it gives two non-slipping loops

Brace: a rigid connection that holds one scaffold member in a fixed position with respect to another member, or to a building or structure

Brake, primary: a brake used to stop a hoist and its load under normal operating conditions

Brake, secondary: a brake designed to prevent the descent of the suspended or supported equipment in the event of an overspeed condition

Breech: the opening between the sheave and the inside of a block

Breech reeving: in suspended access describes the process of placing a suspension wire rope into a device using other than the bitter end to insert the rope into the device. Generally saves time.

Buckle: any device for holding the body belt or body harness closed around the worker's body

Building face roller: a suspended scaffold platform guide roller designed to contact the outer face or wall structure of a building

Building maintenance: operations such as window cleaning, caulking, metal polishing, reglazing and general maintenance on building surfaces

Cable: a conductor or group of conductors enclosed in a weatherproof sheath, that may be used to supply electrical power and/or control current for equipment or to provide voice communication circuits

Cable restraint: flexible wire mesh gripping device designed so that the more you pull, the more it grips; used with swing stages to support the weight of the cable and to relieve stress upon the electrical wiring devices

Cage: see **Scaffold, Single-point adjustable suspension**

Cantilever: the portion of a structural member which projects beyond its support

Capacitance: the property of a circuit or body that permits it to store an electrical charge equal to the accumulated charge divided by the voltage. Capacitance is expressed in farads.

Carabiner: a connector component generally comprised of a trapezoidal or oval shaped body with a normally closed gate or similar arrangement which may be opened to permit the body to receive an object and, when released, automatically closes to retain the object

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Carriage: a mobile assembly used for the movement and support of a work platform

Caster: a pivoting wheel, containing a wheel lock, a swivel or non-swivel lock or both, which is attached to the base of a scaffold tower for manual movement of the scaffold; a caster does not have to contain a swivel

Certification: a written, signed and dated statement confirming the performance of a requirement

Certified: accepted by design, evaluation or inspection by a registered professional engineer

Circuit: a complete or partial path over which electric current may flow

Circuit breaker: a mechanical switching device capable of making, carrying, and breaking currents under normal conditions. Also making, carrying for a specific time, and automatically breaking currents under specified abnormal circuit conditions, such as those of short circuit. Circuit breakers have an ampere trip rating for normal overload protection and a maximum magnetic ampere interrupting capacity (AIC) for short circuit protection.

Cladding: wind or weather enclosure material used as a means of containment

Clamp, parapet: an adjustable rigging device that clamps over structural parapets of varying widths from which a load is suspended

Combination cables: wire ropes having both steel wires for support of the equipment and shielded copper wires for use as electrical conductors

Commercial power: the term applied to power furnished by an electric power utility

Competent person: as defined in OSHA 1926.450(b) and 1926.32(f) one who is capable of identifying existing and predictable hazards in the surroundings or working conditions that are unsanitary, hazardous or dangerous to employees and who has the authority to take prompt corrective measures to eliminate such hazards

Conductor: a wire, cable, or bus bar designed for the passage of electrical current

Configuration: all shapes in which a scaffold can be placed within its intended limits

Connector: a device which is used to couple (connect) parts of the personal fall arrest system and positioning device systems together. It may be an independent component of the system.

Contact: an electro-mechanical device operated by an electric coil; it allows automatic or remote operation to repeatedly establish or interrupt an electrical power circuit.

Contacts: devices for making and breaking electrical circuits, which are a part of all electrical switching devices

Continuous stabilization: the portion of a suspended unit (suspended scaffold) that positively engages the building tie-in guides and provides work platform stabilization for vertical travel of the platform along the full length of the building façade

Continuous stabilization buttons: channel shape attached to each end of the platform that slide over buttons that are placed at every floor

Control: a system governing starting, stopping, direction, acceleration, speed and retardation of moving members

Controlled descent device: a device which allows a worker to descend at a controlled speed

Cornice hook: a hook designed expressly to handle the forces exerted by point-loading the device to secure a suspension cable under a cornice of a building.

Counterweight: weight or weights used to counterbalance a load

Coupler: a device for locking together the tubes of a tube and coupler scaffold

Crossbrace: two diagonal scaffold members joined at their center to form an X

CSA: Canadian Standards Association

Current (I): the amount of electricity flowing in a circuit, measured in amperes

Curved track: fabricated into a radius or cut in degree increments for a segmented curve

Cycle: a given length of time (see **Alternating Current**). In the U.S., most electric current is 60 cycle (60 Hz).

Davit: a member used for support of suspended scaffolds

Dead load (scaffold): the weight of the scaffold structure, including platform and accessories

Dead load (shoring): the weight of forms, stringers, joists, reinforcing rods and the concrete to be placed

Dealer: a person or entity who buys from a manufacturer or distributor and who generally sells, rents and services equipment

Debris chute: an enclosed conveyance to direct the flow of waste material to a collection bin below

Deceleration device: see **Shock absorber**

Deceleration distance: the additional vertical distance a falling employee travels, excluding lifeline elongation and free fall distance, before stopping, from the point at which the deceleration device begins to operate. It is measured as the distance between the location of an employee's body belt or body harness attachment point at the moment of activation (at the onset of fall arrest forces) of the deceleration device during a fall, and the location of that attachment point after the employee comes to a full stop

Descending: a suspended scaffold moving downward

Direct current (DC): an electric current flowing in one direction

Directional controls: all primary controls necessary to raise, lower, rotate, telescope, drive or otherwise initiate the powered functions of the work platform

Distribution panel: a device that provides multiple power outlets from a 208V 3-phase or 240V single-phase power source for operating power tools, work lights, and other electrical equipment

Double bowline: a variation of a bowline knot, tied in a double section of rope; this knot gives two non-slipping loops

Dropline: see **Lifeline**

Duty rating: see **Load**

Dynamic load: see **Load, Dynamic**

Electrical ground: a conducting connection between an electrical device and the earth or another conducting body that serves in place of the earth

Elevation: an established elevation in relation to sea level or another point

Elevation (drafting): a view of a structure in the vertical plane

Emergency (stand-by) power: an independent reserve source of electric power that provides stand-by electric power upon failure or outage of normal power source

End guardrail: a guardrail placed across the end of a scaffold platform or its extensions

Energy absorber: see **Shock absorber**

Equivalent: an alternative design or features that will provide an equal factor of safety

Exposed sides and ends: see **Open sides and ends**

Eye or Eye splice: a loop in a rope around a formed thimble made by fastening the end of the rope back onto itself

Fabricated platform (2-person): fabricated platform unit used to support two workers and limited material; these platforms are usually used with trestles, extension trestles, platforms, step-ladders or they can be used with stirrups as part of a suspended scaffold, provided they are a minimum of 20 in. (508 mm) wide

Fabricated platform (3-person): fabricated platform unit used to support three workers and limited material; these platforms are usually used with stirrups as part of a suspended scaffold or as a scaffold runner board

Façade: face or frontage, typically of a building

Factor of safety: the ratio of ultimate load to the allowable load

Failure: the condition at which a component or assembly can no longer support the load (load refusal)

Fairlead: a guide for wire rope

Fairlead roller: a roller device to allow a minor change in direction of travel of a rope under tension

Fall arrest devices: physical components used to stop a falling worker; these components include but are not limited to nets, body harnesses, lanyards, lifelines, etc.

Fall prevention devices: physical components used to prevent a worker from falling off an elevated surface; these include but are not limited to guardrails, screens, body belts, body harnesses, tethers, etc.

Fist grip: a trade name; see **Twin base clip**

Fixed davit: a davit designed to remain at a fixed location

Flanges: the parallel flat portions that describe the cross-sectional shape of structural members such as I-beams, channels or T-beams

Float scaffold: see **Scaffold, Float**

Four point scaffold: see **Scaffold, Mason's adjustable**

Free fall: the act of falling before a personal fall arrest system begins to apply force to arrest the fall

Free fall distance: the vertical displacement of the fall arrest attachment point on the employee's body belt or body harness between onset of the fall and just before the system begins to apply force to arrest the fall; this distance excludes deceleration distance and lifeline/lanyard elongation, but includes any deceleration device slide distance or self-retracting lifeline/lanyard extension before they operate and fall arrest forces occur.

Freely laid track: galvanized steel I-beams resting on the rooftop and separated from the roof membrane by layers of protective support material and not anchored to the building structure

Frequency: the number of complete cycles of an alternating voltage or current per unit of time, usually expressed in cycles per second or Hertz (Hz)

Full load current (Amps): the greatest current that a motor or other device is designed to carry under specific conditions: when rated voltage is applied at rated frequency with rated horsepower. Any additional current is an overload.

Fuse: an over-current protective device that consists of a conductor that melts and breaks when current exceeds rated value beyond a predetermined time

Generator: a machine that converts mechanical energy into electrical energy/power

Generator receptacle: a contact device installed for the connection of a plug and flexible cord to supply emergency power from a portable generator or other alternate source of power. Receptacles are rated in voltage, amps, number of wires, and by enclosure type.

Grade: the ground, floor, sidewalk, roof or any other approximately level solid surface of sufficient area and having sufficient structural strength to be considered as a safe place to work

Ground: a connection, either intentional or accidental, between an electric circuit and the earth or some conducting body serving in place of the earth

G.F.I. (Ground Fault Interrupter): a device which automatically disconnects electrical current in the event of a short in the circuit

Ground fault circuit interrupter (GFCI): a receptacle with a built in circuit that will detect leakage current to ground on the load side of the device. When the GFCI detects leakage current to ground, it will interrupt power to the load side of the device, preventing a hazardous ground fault condition. GFCI receptacles must conform to UL Standard 943 Class A requirements, and their use is required by the National Electric Code NFPA-70 in a variety of indoor and outdoor locations.

Ground rigged davit: a davit which cannot be used to raise a suspended working platform above the building face being serviced

Ground rigging: a method of assembling a suspended platform while it is positioned at ground level or on another safe horizontal surface

Grounded neutral: the common neutral conductor of an electrical system, which is intentionally connected to ground to provide a current carrying path for the line to neutral load devices

Grounding conductor: the conductor that is used to establish a ground and that connects equipment, a device, a wiring system, or another conductor (usually the neutral conductor) with the grounding electrode

Guardrail: horizontal members of a guardrail system

Guardrail post: the vertical support used in a guardrail system

Guardrail system: members erected in a vertical plane to restrict users from falling from a work platform; may consist of posts, top rails and midrails

Guide button: a building face anchor designed to engage a guide track mounted on a platform

Guide roller: a rotating cylindrical member, operating separately or as part of a guide assembly to provide continuous engagement between the suspended or supported equipment and the building guides or guideways

H-beam: steel beam with wider flanges than an I-beam

Hairpin: a reusable formed wire loop used to keep a rivet or pin in place

Hertz (Hz): a unit of frequency equal to one cycle per second

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Hoist: a mechanical device to raise and lower a suspended scaffold

Hoist arm: a vertical upright on which a rope and pulley can be suspended for hoisting light material

Hoist rated load: the hoist manufacturer's maximum allowable operating load

Hoist standard: see **Hoist arm**

Hole: a gap or void 2 in. (51 mm) or more in its least dimension, in a floor, roof or other walking/working surface

Hook: a j-shaped piece of metal on a block, to which a load is attached

Horsepower (HP): the amount of energy required to lift 33,000 lb, one foot, in one minute. The electrical equivalent of one horsepower is 745.6 watts.

I-beam clamp: a device used to secure scaffold rigging to an overhead steel beam

I-beam roller: a device used to secure scaffold rigging to an overhead steel beam to allow horizontal movement of a suspended scaffold

Impedance: a characteristic of an electric circuit that determines its hindrance to the flow of electricity. The higher the impedance, the lower the current. The unit of measure is the same as resistance (ohms).

Inductance: the property of an electric circuit that causes it to store energy in the form of a magnetic field and because of which a varying current in a circuit induces an electromotive force (voltage) in that circuit or a neighboring circuit

Insert: a threaded connector embedded into masonry, concrete or rock to which an anchor device can be connected

Installation: a system of scaffold placed in position for use

Interlock: a device designed to ensure that operations or motions occur in proper sequence

Intermittent stabilization: a method of platform stabilization in which the angulated suspension wire rope(s) is secured to regularly spaced building anchors

Intermittent tie-ins: a means of stabilization whereby a scaffold's suspension ropes are secured to permanently installed building anchors and which are located in vertical rows in close proximity to the suspension ropes

Joists: horizontal structural members which directly support sheathing

Kilovolt-Amperes (kVA): a rating of apparent power before being used, such as the rating of a transformer

Kilowatt (kW): a unit of measure of electrical power, equal to 1000 watts. Used where larger units of electrical power are measured.

Ladder stand: a mobile, fixed-size, self-supporting ladder consisting of a wide flat tread ladder in the form of stairs

Landing: a platform at the end of a flight of stairs

Lanyard: a component consisting of a flexible line of rope, wire rope or strap which generally has a connector at each end for connecting the body support to a fall arrester, energy absorber, anchorage connector or anchorage

Lifeline: a flexible line for connection to an anchorage at one end to hang vertically (vertical lifeline), or for connection to anchorage at both ends to stretch horizontally (horizontal lifeline), and which serves as a means for connecting other components of a personal fall arrest system to the anchorage

Limit switch: an electrical sensing device which stops movement of a platform through an electrical disengagement

Live load: workers and materials on the platform

Load

Allowable: (Also called **Rated Load**) the load limit at which the item is to be used; determined by dividing the ultimate load by an appropriate factor of safety

Dynamic: an additional load imposed on a scaffold structure, caused by movement of the scaffold, wind movement of loads on the platform, brake engagement during movement, etc.

Maximum intended: see **Maximum intended load**

Total (suspended): the sum of all loads supported by the wire rope

Ultimate load: the load at which failure occurs

Working load: see **Load, Allowable**

Lower levels: areas below the level where the employee is located and to which an employee can fall; such areas include but are not limited to ground levels, floors, roofs, ramps, runways, excavations, pits, tanks, materials, water and equipment

Manual: a book or pamphlet containing written instructions on how to operate and/or maintain a product

Manufacturer: a person or entity who makes, builds or produces a product

Mason's adjustable multiple-point suspension scaffold: see **Scaffold, Mason's adjustable**

Maximum intended load: the total load of all persons, equipment, tools, materials, transmitted loads, and other loads reasonably anticipated to be applied to a scaffold or scaffold component at any one time

Mechanical equipment: all motor or human propelled wheeled equipment used for roofing work, except wheelbarrows and mopcars

Microns: measurement used to define particulates in the air stream (one micron = one millionth of a meter, about one eighth the thickness one human hair)

Midrail: a horizontal member approximately midway between the toprail and platform of a guardrail system

Mobile davit: a davit designed to be used in association with a roof car

Multi-layered drum hoist: suspension wire ropes that lay on a drum hoist one on top of another

Multi-level suspended scaffold: see **Scaffold, Multi-level suspended**

Multiple-point suspended scaffold: see **Scaffold, Multi-point suspended**

Multiple wrap drum hoist: a type of hoisting machine that accumulates the suspension wire rope in more than one successive layer on the surface of the drum of the hoist

NEC: the National Electrical Code, which is the standard of the National Board of Fire Underwriters for electric wiring and apparatus, as recommended by the National Fire Protection Association

NEMA: National Electrical Manufacturers Association, a non-profit trade association supported by the manufacturers of electrical apparatus and supplies. NEMA promulgates standards to facilitate understanding between manufacturers and users of electrical products.

Neutral: the point common to all phases of a polyphase circuit, conductor to that point, or return conductor in a single phase circuit. The neutral in most systems is grounded at or near point of service entrance only and becomes the grounded neutral.

Occupational Safety and Health Act: a United States Federal Law that regulates safe work practices affecting employees; also known as **OSHA**. See OSHA.gov for more information

Ohm: unit of electrical resistance. One volt will cause a current of one ampere to flow through a resistance of one ohm.

Ohm's Law: the rate of the flow of the current is equal to the electromotive force divided by the resistance. The three basic Ohm's law formulas are:

$$\begin{aligned} \text{Amperes} &= \text{Volts} \div \text{Ohms} \\ \text{Ohms} &= \text{Volts} \div \text{Amperes} \\ \text{Volts} &= \text{Amperes} \times \text{Ohms} \end{aligned}$$

Open sides and ends: the edges of a scaffold platform that exceed the maximum allowable horizontal distance away from a sturdy, continuous vertical surface (such as a building wall) or a sturdy, continuous surface (such as a floor); this is normally a distance of 14 to 18 in. (356 to 457 mm), but may be greater or lesser depending upon the type of work to be performed on the platform and the particular safety standard under which the work is being performed

Opening: a gap or void 30 inches (760 mm) or more high and 18 inches (480 mm) or more wide, in a wall or partition through which employees can fall to a lower level

Operating control: a mechanism regulating or guiding the operation of equipment that ensures a specific operating mode

Operating device: a device actuated manually to activate a control

OSHA: see **Occupational Safety & Health Act**

Outreach: the distance between the fulcrum point and the suspension point. Also referred to as "reach" or "thrustout"

Outrigger (suspension): a structural member extending out from a building or structure to support a hanging scaffold

Outrigger beam (thrustout): the structural member of a suspension scaffold or outrigger scaffold which provides support for the scaffold by extending the scaffold point of attachment to a point out and away from the structure or building

Outrigger scaffold: a supported scaffold consisting of a platform resting on outrigger beams (thrustouts) projecting beyond the wall or face of the building or structure, the inboard ends of which are secured inside the building or structure

Overload device: an electro-mechanical device in a drum or traction hoist that senses an overloading condition and arrests upward travel until the overloading is resolved

Overload protection: See **Thermal overload protection**.

Owner: a person or entity who has possession of a product by virtue of proof of purchase

Parallel circuit: an electrical circuit that has more than one path through which electrons may flow

Parapet: that part of a wall that extends above the roof level which may or may not be structural

Parapet clamp: see **Clamp, parapet**

Particulates: any solid material, such as dirt, rust, weld fines, pollen, etc., that is in the air stream

Pedestal: support for I-Beam track fabricated from steel or concrete

Personal fall arrest system (PFAS): an assembly of components, subsystems and anchorage used to arrest a person in a fall from a working height

Pin and sleeve: a receptacle with cylindrical sleeve-type contacts

Platform: an elevated work surface composed of one or more platform units

Modular: any platform assembled from standard components to form various lengths or configurations

Pick: a fabricated platform with a unique shape, wide in the center and narrow at the ends

Powered: suspended or supported manned equipment used to provide access to the face of the building for the purpose of construction, maintenance or window cleaning, and which is raised or lowered by powered hoist equipment

Platform height: the vertical distance measured from the ground floor to the platform

Platform rated load: the combined weight of workers, tools, equipment and other material which is permitted to be carried by the working platform at the installation, as stated on the load rating plate

Platform stabilization: means of stabilization of the platform to the façade (continuous or intermittent) to prevent the platform from being blown away from the façade during windy conditions

Platform unit: a general term for individual components (planks, scaffold decks or fabricated platforms) that comprise the platform of a scaffold; platform units can either stand alone or be used in conjunction with one another to form a platform

Plumb: vertical or the act of making vertical

Polypropylene: a type of synthetic material

Positioning device system: a body belt or body harness system rigged to allow an employee to be supported on an elevated vertical surface, such as a wall, and work with both hands free while leaning

Power operated hoist: a hoist which is powered by other than human energy

Primary brake: see **Brake, primary**

Professional engineer: a person registered or licensed to practice engineering under state or provincial jurisdiction

PSI: pounds per square inch (unit for pressure of compressed air)

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 related to the subject matter, the work or the project

Rated load: the manufacturer's recommended maximum load

Rated working load: the combined static weight of men, materials and suspended or supported equipment

Reactance: the component of impedance that does not dissipate energy. Inductive reactance stores magnetic energy and hinders the flow of alternating current. Capacitive reactance stores electric energy.

Relay: an electric device that is designed to interpret input conditions in a prescribed manner and, after specified conditions are met, to respond and cause contact operation or similar abrupt changes in associated electric control circuits

Resistance (R): the non-reactive opposition that a device or material offers to the flow of direct or alternating current. Usually measured in ohms. The larger the resistance the lower the current for a given source (driving) voltage.

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Roll-out (fall arrest device): the process by which a snaphook or carabiner unintentionally disengages from another connector or object to which it is coupled

Roller bumper: see **Building face roller**

Rolling tower: a scaffold supported by casters

Roof: the exterior surface on the top of a building; this does not include floors or formwork which, because a building has not been completed, temporarily becomes the top surface of a building

Roof car: a structure for the suspension of a working platform, providing for its horizontal movement to working positions

Roof hook: the anchoring device used to support a suspension system. A roof hook is not acceptable to use as a cornice hook.

Roof mounted hoist: hoist units are mounted on a roof carriage that is mounted on the roof

Roof powered platform: a working platform where the hoist(s) is used to raise or lower the platform located on the roof

Roof rigged davit: a davit used to raise the suspended working platform above the building face being serviced; this type of davit can also be used to raise a suspended working platform which has been ground-rigged

Roofing work: the hoisting, storage, application and removal of roofing materials and equipment, including related insulation, sheet metal and vapor barrier work, but not including the construction of the roof deck

Rope: the equipment used to suspend a component of an equipment installation (i.e., wire rope)

Rope grab: a deceleration device which travels on a lifeline and automatically, by friction, engages the lifeline and locks so as to arrest the fall of an employee; a rope grab usually employs the principle of inertial locking, cam/level locking or both

Safety factor: the ratio of the nominal strength to the nominal design load

Safety harness: a system of straps worn by a user to arrest a fall when used as part of a fall arrest system

Scaffold: a temporary elevated or suspended work unit and its supporting structure used for supporting a worker(s), materials or both

Adjustable: a scaffold structure with a manually elevating carriage that supports work and material

Area: an assemblage of tube and couple or system scaffold components to form a grid

Bracket form: see **Scaffold, Form**

Bricklayer's square: a scaffold composed of framed wood squares which support a platform

Buggy: see **Scaffold, Rail**

Built-up: see **Scaffold, Supported**

Carpenter's bracket: a scaffold consisting of a platform supported by brackets attached to a vertical surface

Catenary: a platform supported by two essentially horizontal and parallel wire ropes which are secured to structural members

Double pole: a scaffold supported from the base by a double row of posts; this scaffold is independent of support from the walls and is constructed of posts, runners, bearers and horizontal platforms

Fabricated tubular frame: a system of tubular metal frames (panels) field erected with bracing members

Float: a suspended large area platform in any configuration where multiple hoists are used to lift the platform

Form: a wood or metal bracket attached to a wall form upon which scaffold planks rest, for the purpose of providing an elevated working platform for those engaged in rebar and concrete placement

Free standing: a scaffold which is not attached to any other structure but is stable in itself or, if necessary, stabilized by outriggers and/or anchors

Hallway: a narrow fabricated mobile scaffold, capable of incremental adjustments

Horse: a scaffold for light or medium duty use, composed of horses supporting a work platform

Independent pole: see **Scaffold, Double pole**

Independent tied: a run scaffold consisting of two lines of posts, one line supporting the inside and tied to the structure at predetermined intervals

Interior hung: a suspension scaffold consisting of a platform suspended from the ceiling or roof structure by fixed length supports

Ladder jack: a light-duty scaffold consisting of a platform supported by brackets attached to single or extension ladders

Manually propelled mobile: a scaffold assembly supported by casters and moved manually

Mason's adjustable: a scaffold having a continuous platform supported by bearers suspended by more than two wire ropes from overhead supports, so arranged and operated as to permit the raising or lowering of the platform to desired working positions

Modular: see **Scaffold, System**

Multi-level suspended: a two-point or multi-point adjustable suspension scaffold with a series of platforms at various levels supported by common stirrups

Multiple-point suspended: a suspension scaffold consisting of a platform(s) suspended by more than two ropes from overhead supports and equipped with means to permit the raising and lowering of the platform to desired work levels; this definition does not include two-point adjustable suspension scaffolds which are bridged one to another

Needle beam: a suspension scaffold consisting of a platform supported by bearers and suspended from overhead supports by fixed length ropes

Outrigger: a scaffold consisting of a work unit supported by outriggers or thrust-outs projecting beyond the wall or face of the building or structure; the inboard ends of the outriggers are secured inside of the building or structure

Parapet: see **Scaffold, Rail**

Prefabricated mobile: a scaffold system that is manufactured and shipped with all necessary components for the sole purpose of being used as a mobile scaffold

Pump jack: a scaffold system which climbs a braced pole using a mechanical, clamping device activated by the pumping of a foot lever

Rail: a combination of scaffold systems and components used to suspend a work platform under structures, primarily bridges; the scaffold attaches in various configurations to the bridge's guardrails, facial girders, beams or parapets; it includes a system of rollers which allow the entire work platform to be moved along under the lower portion of the bridge

Ship scaffold: see **Scaffold, Float**

Single-point adjustable suspension: a scaffold consisting of a platform suspended by one rope from an overhead support, equipped with a means to permit the raising and lowering of the platform to desired work levels

Single pole: a scaffold which has one line of standards to support the outside edge of the deck and utilizes the wall being built or the structure to support the inside ends of the putlogs (transoms)

Stone setters adjustable multiple-point suspension: a platform run supported by putlogs and hoists suspended from at least four points to permit raising and lowering to a desired working position

Supported: one or more platforms supported by outrigger beams, brackets, poles, legs, uprights, posts, frames or similar rigid support

Suspended:

Manual: a manually operated scaffold suspended by rope from an overhead supporting system so arranged and operated as to permit raising or lowering to desired working positions

Powered: a power-operated scaffold suspended by wire rope from an overhead supporting system so arranged and operated as to permit raising and lowering to desired working positions

Swing: a suspension scaffold consisting of platforms supported by hangers (stirrups) suspended by two ropes from overhead supports and equipped with means to permit the raising and lowering of the platform to desired work levels

System: a scaffold consisting of posts with uniformly spaced fixed connection points that accept runners, bearers and diagonals

Temporary: a suspended scaffold used to service structures on a temporary basis for construction, alteration, demolition and maintenance

Tower: a scaffold structure with a height greater than its largest base dimension

Tube and coupler: a scaffold consisting of individual pieces of tubing or pipe erected with special coupling devices which join posts, braces and runners to form an integral load-carrying structure

Two-point suspension (swing): a suspension scaffold consisting of a platform supported by hangers (stirrups) suspended by two ropes from overhead supports and equipped with means to permit the raising and lowering of the platform to desired work levels

Window jack: a scaffold, the platform of which is supported by a bracket that projects through a window opening

Scaffold hoist: a device intended to raise and lower a suspended scaffold

Scaffold layout: a designed drawing prepared prior to erection showing proper arrangement of scaffold equipment

Scaffold run: a continuous series of scaffold bays in a single direction

SCFM: standard cubic feet per minute

Screen: a wire or plastic mesh barrier installed between scaffold guardrails and toeboards to keep tools and materials from falling off the scaffold platform; required whenever there are people working or passing under scaffolds

Screwjack: a load carrying device that allows adjustments in the height of a scaffold or shoring system

Screwjack caster: a screwjack with a tube end to accept a caster shaft or baseplate

Secondary brake: a brake that is intended to stop the suspended scaffold under emergency conditions only

Self powered platform: a working platform where the hoist(s) is used to raise or lower the platform

Shackle: a U-shaped structural steel attachment device

Sheave: a pulley wheel inside a hoist or block and tackle which is used to gain traction or change the direction of the rope

Shock (shoring): the impact of material such as fresh concrete as it is released or dumped on formwork during placement

Shock absorber: a component of a system that allows dissipation of energy by extending the deceleration distance

Single fixed boom: box type steel section with maximum standard fixed length of 72 ft (22 m); longer fixed reaches are available

Single-phase circuit: a circuit that differs in phase by 180°. Single-phase circuits have two conductors, one of which may be a neutral or three conductors, and one of which is neutral.

Single-point adjustable suspension scaffold: see **Scaffold, Single-point adjustable suspension**

Sling: a length of fiber or wire rope spliced together at the ends to form a circle; used to wrap around loads for the purpose of hoisting

Snaphook: a self-closing device with a keeper, latch or other similar arrangement that will remain closed until manually opened; this includes self-closing, single action, double action and double locking snaphooks

Soffit: the underside of a subordinate part or member of a building, such as a beam, stairway, arch, eave, etc.

Span: the horizontal distance between posts, columns or upright support members

Special purpose fabricated stage: a platform unit that represents either a modification or a combination of design or construction features in one of the general-purpose types of scaffold decks or fabricated platforms

Glossary of Powered Access & Safety Terms

(Continued)

Splice: (a) a method of weaving the strands of ropes together to make a permanent connection; (b) a method of connecting two sections of post together to make a longer post

Stability: a condition of a structure where the sum of all the moment forces (dead and live) that exist to prevent overturning are greater than the moment forces (horizontal and vertical) that cause overturning

Stability factor: a calculated ratio of the existing stabilizing moment to the probable overturning moment

Stage: see **Platform**

Stand-by power: see **Emergency Power**

Starting amps: the maximum current drawn by a motor during the starting period

Step-down transformer: a transformer that provides one or more electrical outlets at reduced voltage and current from the main power source

Stirrup: the device that connects the hoist mechanism to the suspended platform

Stone setters adjustable multi-point suspension scaffold: See **Scaffold, Stone setters adjustable multi-point suspension**

Strain relief anchor: a mechanical device for anchorage of cable to prevent undue strain on the electrical cable-connectors

Supported scaffold: one or more platforms supported by outrigger beams, brackets, poles, legs, uprights, posts, frames or similar rigid support

Surge arrester: a protective device for limiting surge voltages on equipment by discharging or bypassing surge current; it prevents continued flow of follow current to ground, and is capable of repeating these functions as specified.

Suspended equipment: building maintenance equipment that is suspended and raised or lowered to its working position by means of ropes or combination cables attached to some anchorage above the equipment

Suspended scaffold, manual: see **Scaffold, Suspended, Manual**

Suspended scaffold, powered: see **Scaffold, Suspended, Powered**

Suspended scaffold, swing: see **Scaffold, Suspended, Swing**

Suspended scaffold, temporary: see **Scaffold, Suspended, Temporary**

Swaged fitting: a metal sleeve that is cold-formed onto wire rope

Swing stage: a device for making, breaking, or changing connections in a circuit

System scaffold: a scaffold consisting of posts with fixed connection points that accept runners, bearers and diagonals that can be interconnected at predetermined levels

Tag line: a second rope attached to a load being hoisted or lowered to keep it from swinging out of control and striking workers, scaffold members or other objects

Tail line: the non-supporting end of a suspension wire rope

Terminal block: an insulating base equipped with terminals for connecting wires

Thermal overload protection: the effect of a device operative on excessive current, but not necessarily on short circuit, to cause and maintain the interruption of current flow to the device being governed

Three-phase circuit: a combination of circuits energized by alternating electromotive sources that differ in phase by one third of a cycle, that is, 120°. A three-phase circuit may be three wire or four wire with the fourth wire being connected to the neutral point of the circuit that may be grounded.

Thrustout: see **Outrigger (suspension)**

Tieback: an attachment from a structural member to a supporting device

Tie-in-device: portion of a suspended unit that positively engages the building tie-in-guides

Tie-in-guide: portion of a building that provides continuous positive engagement between the building and a suspended unit during its vertical travel on the face of the building

Toeboard: a barrier secured along the sides and the ends of a platform unit to guard against the falling of material, tools and other loose objects

Toprail: the uppermost horizontal rail of a guardrail system

Total load (suspended): See **Load, Total (suspended)**

Track: standard I-beam shapes anchored or freely laid on the roof

Traction drum or sheave hoist: a device that does not accumulate the suspension rope but is designed to climb the rope by the application of a friction force between the rope and the drum or sheave

Trained personnel: one who has received instruction and has demonstrated the ability to perform a certain task or operation

Transformer: a static electric device consisting of a single winding, or two or more coupled windings, used to transfer power by electromagnetic induction between circuits at the same frequency, usually with changed values of voltage and current

Transportable outriggers: outriggers designed to be moved from one work location to another

Traversing: moving the roof carriage horizontally on the roof with electrically powered motors

Trolley line: a horizontal lifeline

Trolley system: an overhead track-mounted unit which suspends a hoist for workers, material or both

Turntable: horizontal pivot point between mast and roof carriage

Twin base clip: a device used to fasten the end of a wire rope which has been looped over a thimble to the main rope support

Two-point suspended powered scaffold: see **Scaffold, Two-point suspension**

U-bolt: a U-shaped metal rod, threaded at its ends

UL: the common abbreviation for Underwriters Laboratories, Inc.

Underwriters Laboratories, Inc.: an organization that tests the safety aspect of a wide variety of equipment used in industry and in the home, in accordance with a set of engineering and design standards

User: an individual having access to or control over the equipment

Verified: accepted by design, evaluation, or inspection by a registered professional engineer

Volt: a unit of measure of electric potential and electromotive force, equal to the difference of electric potential between 2 points on a conducting wire carrying a constant current of one ampere when the power dissipated between the points is one watt

Voltage: electromotive force, or difference in electric potential, expressed in volts

Walkway: a portion of a scaffold platform used only for access and not as a work level

Watt: a unit of measure of electrical power, equal to the power used when one volt causes one ampere to flow in a circuit

Weatherproof: equipment so constructed or protected that exposure to the weather will not interfere with its operation

Web: a member which separates flanges on a beam

Whipcheck: safety cable used to restrain air hoses if an end breaks

Winch: a stationary motor-driven or hand-powered machine used for hoisting or hauling, having a drum around which is wound a rope or chain attached to the load being moved

Wind speed: the speed, measured in miles per hour or meters per second, of the wind at elevation

Winding drum hoist: a type of hoisting machine that accumulates the suspension wire rope on the hoisting drum

Work basket (cage): see **Scaffold, Single-point adjustable suspension**

Working platform: suspended or supported equipment intended to provide access to the face of a building and manned by persons engaged in building maintenance

Wrap: one complete turn of the suspension wire rope around the surface of a hoist drum

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