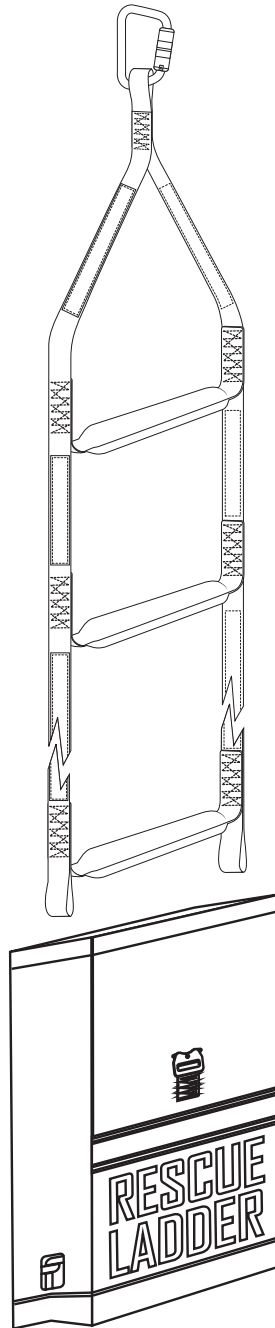


Rescue Ladder

User Instruction Manual



This manual is intended to meet the Manufacturer's Instructions as required by the Occupational Safety and Health Administration (OSHA) and should be used as part of an employee training program.

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For purposes of this manual, the FallTech® Rescue Ladder in all iterations may be referred to collectively as the Rescue Ladder, the Ladder, the equipment, the product, or the unit.

Throughout this manual, ANSI Z359.0-2012 fall protection words, phrases and terms are used. These terms are all formally defined in Section 9 of this manual.

1.0 Warnings and Important Information

WARNING

- Avoid moving machinery, thermal, electrical, and/or chemical hazards as contact may cause serious injury or death.
- Avoid swing falls.
- Follow the weight restrictions and recommendations in this manual.
- Remove from service any equipment subjected to fall arrest forces.
- Remove from service any equipment that fails inspection.
- Do not alter or intentionally misuse this equipment.
- Consult FallTech when using this equipment in combination with components or subsystems other than those described in this manual.
- Do not connect rebar hooks, large carabiners, or large snap hooks to the FBH dorsal D-rings as this may cause a roll-out condition and/or unintentional disengagement.
- Avoid sharp and/or abrasive surfaces and edges.
- Use caution when performing arc welding. Arc flash from arc welding operations, including accidental arcs from electrical equipment, can damage equipment and are potentially fatal.
- Examine the work area. Be aware of the surroundings and workplace hazards that may impact safety, security, and the functioning of fall arrest systems and components.
- Hazards may include, but are not limited to, cable or debris tripping hazards, equipment failures, personnel mistakes, or moving equipment such as carts, barrows, fork lifts, cranes, or dollies. Do not allow materials, tools, or equipment in transit to contact any part of the fall arrest system.
- Do not work under suspended loads.

IMPORTANT

This product is part of a personal fall arrest, restraint, work positioning, suspension, or rescue system. A Personal Fall Arrest System (PFAS) is typically composed of an anchorage and a Full Body Harness (FBH), with a connecting device, i.e., a Shock Absorbing Lanyard (SAL), or a Self-Retracting Lanyard (SRL), attached to the dorsal D-ring of the FBH.

These instructions must be provided to the worker using this equipment. The worker must read and understand the manufacturer's instructions for each component or part of the complete system. Manufacturer's instructions must be followed for proper use, care, and maintenance of this product. These instructions must be retained and be kept available for the worker's reference at all times. Alterations or misuse of this product, or failure to follow instructions, may result in serious injury or death.

A Fall Protection Plan must be on file and available for review by all workers. It is the responsibility of the worker and the purchaser of this equipment to assure that users of this equipment are properly trained in its use, maintenance, and storage. Training must be repeated at regular intervals. Training must not subject the trainee to fall hazards.

Consult a doctor if there is reason to doubt your fitness to safely absorb the shock of a fall event. Age and fitness seriously affect a worker's ability to withstand falls. Pregnant women or minors must not use this equipment.

ANSI limits the weight of fall protection equipment users to a maximum of 310 lbs. Products in this manual may have a rated capacity exceeding ANSI capacity limits. Heavy users experience more risk of serious injury or death due to falls because of increased fall arrest forces placed on the user's body. In addition, the onset of suspension trauma after a fall event may be accelerated for heavy users.

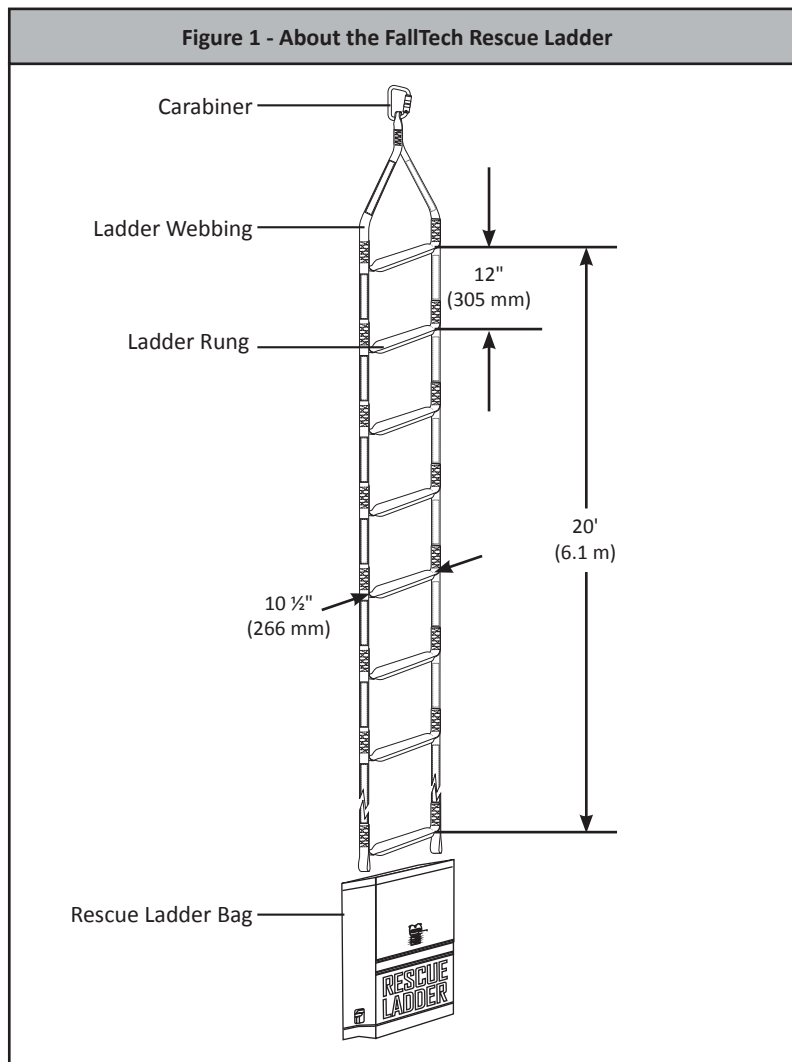
The user of the equipment discussed in this manual must read and understand the entire manual before beginning work.

NOTE: For more information consult the ANSI Z359 body of standards.

2.0 Description

The FallTech® Rescue Ladder assists in returning fall victims to safety. The Rescue Ladder is contained in a polyester bag and the ladder is constructed with reflective polyester webbing with steel reinforced ladder rungs. A carabiner attaches the ladder to an anchor point; see Figure 1 for component description.

See Table 1A in Appendix A for product and materials specifications.



3.0 Application

3.1 Purpose: The FallTech Rescue Ladder is designed to assist in the rescue of a fallen victim and return him or her to safety. The Rescue Ladder can be lowered to the victim to allow the victim to climb to safety or a rescuer can climb down to administer assistance.

3.2 Personal Fall Arrest System: A PFAS is typically composed of an anchorage and a FBH, with an energy absorbing connecting device, i.e., an EAL, an SRL, or a Fall Arrester Connecting Subsystem (FACSS), attached to the dorsal D-ring of a properly fitted and adjusted FBH. All uses and applications of this equipment requires the FBH to be properly fitted and adjusted to the user. Failure to properly fit the FBH to the user could result in serious injury or death.

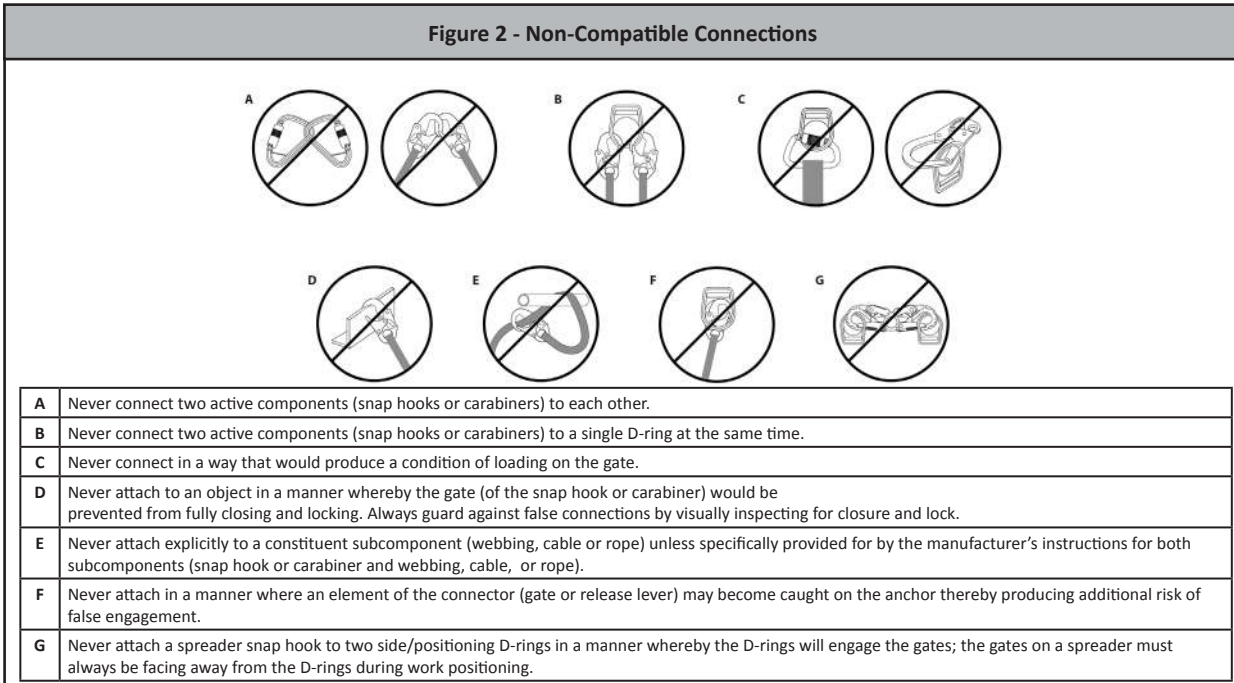
3.3 Rescue: Ensure a written rescue plan, method, and system is in place and readily available for rapid response. Rescues may require specialized equipment or measures beyond the use of this product. Other rescue operations are beyond the scope of this manual. See ANSI Z359.4-2013.

3.4 Application Limits: Take action to avoid moving machinery, sharp edges, abrasive surfaces, and thermal, electrical, including the arc from welding applications, and chemical hazards as contact may cause serious injury or death. The rescue ladder is not designed for use in restraint, personnel riding, or work positioning.

4.0 System Requirements

4.1 Capacity: The FallTech Rescue Ladder is designed for use by a single user with a combined weight of user, tools, clothing, etc., up to 425 lbs. (192.8 kg). The Rescue Ladder is designed for use in temperatures ranging from -40°F to 130°F (-40°C to 54°C).

4.2 Compatibility of Connectors: Connectors are considered to be compatible with connecting elements when they have been designed to work together in such a way that their sizes and shapes do not cause their gate mechanisms to inadvertently open regardless of how they become oriented. Contact FallTech if you have any questions about compatibility. Connectors must be compatible with the anchorage or other system components. Do not use equipment that is not compatible, see Figure 2. Non-compatible connectors may unintentionally disengage. Connectors must be compatible in size, shape, and strength. Self-closing, self-locking connectors are required by ANSI and OSHA.



4.3 Compatibility Of Components: This equipment is designed for use with approved components and subsystems only. Substitutions or replacements made with non-approved components or subsystems may jeopardize compatibility of equipment and may affect the safety and reliability of the complete system.

4.4 Making Connections: Only use self-locking connectors with this equipment. Only use connectors that are suitable to each application. Ensure all connections are compatible in size, shape, and strength. Do not use equipment that is not compatible. Visually ensure all connectors are fully closed and locked. Connectors are designed to be used only as specified in each product's user instructions.

4.5 Rescue System Anchorage Strength: An anchorage selected for PFAS application must have the strength to sustain a static load applied in the direction permitted by the Rescue Ladder of at least 3,000 lbs. (13.3 kN).

Select an anchorage location carefully. Consider structural strength, obstructions in the fall path, and swing fall hazards. In certain situations, the qualified person can determine that a given structure is able to withstand the applied load with a safety factor of at least two, as required by OSHA.

5.0 Installation and Use

WARNING

Do not alter or intentionally misuse this equipment. Consult FallTech® when using this equipment in combination with components or subsystems other than those described in this manual. Installation of the Rescue Ladder must be done by personnel familiar with these instructions and trained in the use of this product.

5.1 Pre-Use Inspection: FallTech® requires that the following steps be taken during each inspection prior to use of this product.

1. Inspect the Rescue Ladder webbing for cuts, frays, and signs of damage from excessive wear or abrasion. Also look for excessive dirt, grease, oil, paint, or other surface contamination or discoloring. If any condition exists that compromises the integrity of the Rescue Ladder, immediately remove from service.

2. Check all stitch locations. Ensure that each stitch is intact with no loose, frayed, or torn threads. If any of the stitch locations shows signs of damage or excessive wear, remove the ladder from service.
3. Inspect all metal hardware. Look for hardware that is bent, cracked, or deformed. Look for sharp edges and burrs. Also, check for signs of corrosion. Ensure that none of the metal hardware has an excessive build-up of dirt, grease, oil, paint, or any other substance or contaminant. If any of these conditions exist, remove from service.
4. Inspect the labels. All labels must be present and fully legible.

5.2 Anchorage Location: Select a suitable anchorage point that will support the strength requirement of Section 4.5. To avoid unintentional disengagement of connectors, use only compatible connectors when connecting to the anchorage. Ensure the carabiner closes and locks securely.

5.3 Installation: Open the Rescue Ladder Bag, locate the carabiner, and attach it to a nearby anchor point close to the fall victim. Release the bag to deploy the Rescue Ladder. Ensure that the Rescue Ladder does not unintentionally hit the fall victim during deployment.

6.0 Maintenance, Service, and Storage

6.1 Maintenance: Clean the Rescue Ladder with water and mild detergent if necessary. Do not allow excessive build-up of dirt, paint, or other agents that may cause damage or hardening of the web fibers on any webbing. Hardening of the fibers of the web from external elements may result in a loss of strength or alter the properties of the web in a manner that could cause the Rescue Ladder to fail or to perform incorrectly.

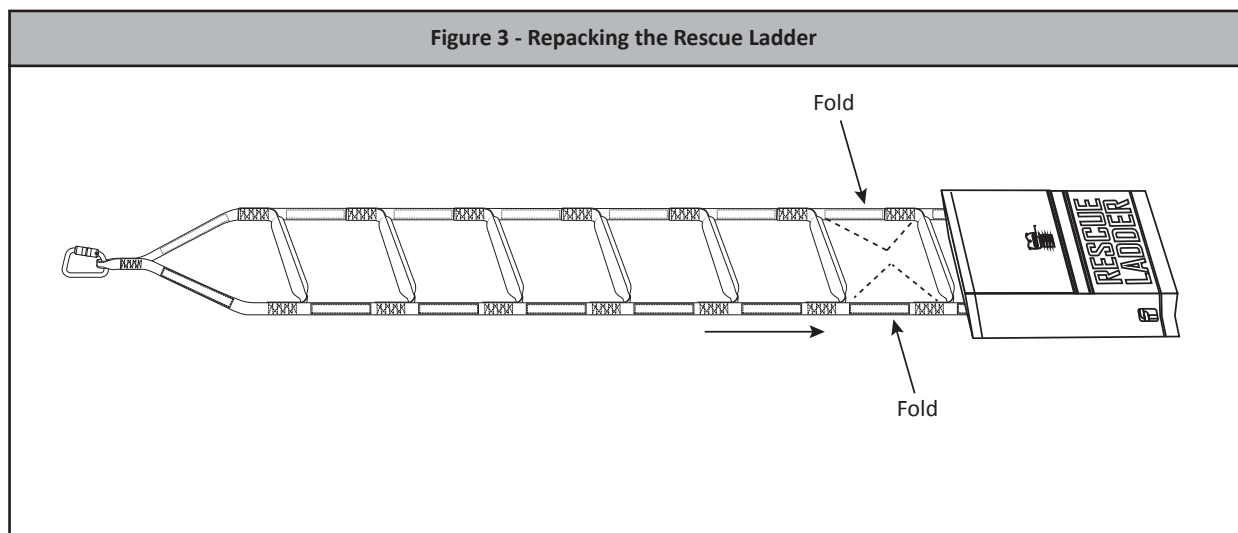
6.2 Proper Care:

- Keeping the Rescue Ladder clean and free of contaminants will greatly increase the service life.
- Mold and mildew due to damp storage will reduce the service life.
- **DO NOT** use heat to dry.
- **DO NOT** use any solvents or petroleum products to clean this Rescue Ladder.
- **DO NOT** attempt to repair or modify this Rescue Ladder or any of its components. Such attempts will void the warranty and may result in serious injury or death

6.2 Service: There are no specific service requirements for this system component.

6.3 Storage: Store the Rescue Ladder in a cool, dry, clean environment out of direct sunlight. Avoid exposure to chemical or caustic vapors. Thoroughly inspect the Rescue Ladder after any period of extended storage.

6.4 Repacking Instructions: To repack the Rescue Ladder after use or deployment, lay the ladder out on a flat surface and remove any twists, kinks, or knots. Starting from the bottom, fold the side ladder webbing inward between the bottom two rungs and place the ladder rung inside the bag. Continue for each set of ladder rungs until the full ladder is contained within the bag, see Figure 3. Attach the carabiner to the loop inside the top of the bag for quick identification and access for the next deployment.



7.0 Inspection

7.1 Pre-Use Inspection: Please review the Pre-Use Inspection guidelines in Section 5.1 for inspection requirement.

Do not use the FallTech Rescue Ladder or additional equipment if it fails any part of this inspection.

7.2 Inspection Frequency:

Pre-Use: Inspect the Rescue Ladder and additional equipment before each use as outlined in section 5.1. All installations must be approved to local standards by a Competent Person.

Annually: The Rescue Ladder and additional equipment must be inspected by a Competent Person annually and recorded on the Inspection Record provided or equivalent document.

Inspection Frequency				
Type of Use	Application Examples	Example Conditions of Use	Worker Inspection Frequency	Competent Person Inspection Frequency
Infrequent to Light Use	Rescue and confined space, factory maintenance	Good storage conditions, indoor or infrequent outdoor use, room temperature, clean environments	Before each use	Annually
Moderate to Heavy Use	Transportation, residential construction, utilities, warehouse	Fair storage conditions, indoor and extended outdoor use, all temperatures, clean or dusty environments	Before each use	Semi-annually to annually
Severe to Continuous Use	Commercial construction, oil and gas, mining, foundry	Harsh storage conditions, prolonged or continuous outdoor use, all temperatures, dirty environments	Before each use	Quarterly to semi-annually

7.3 Inspection Results: If an inspection reveals defects in or damage to the equipment, remove from service immediately.

7.4 Inspection Document: Record inspection results on the Inspection Record provided on the following page or a similar document.

7.5 Inspection Document: Record inspection results on the Inspection Record provided below or on a similar document.

<h2 style="margin: 0;">Inspection Record</h2>					
Model #: _____		Serial #: _____		Date of Manufacture: _____	
INSPECTION DATE	INSPECTOR	COMMENTS	PASS/FAIL	CORRECTIVE ACTION NEEDED	APPROVED BY

8.0 Labels

The labels must be present and legible.

<p>FallTech DO NOT REMOVE LABEL Style (estilo): 685020 Size (tamano): 20' Date of Mfg: AUG 2019 Capacity (capacidad): 130-425lbs Material: Polyester Web, Aluminum</p>	<p>USER MUST READ AND FOLLOW INSTRUCTIONS SUPPLIED WITH THIS PRODUCT AT TIME OF SHIPMENT. FAILURE TO DO SO MAY RESULT IN SERIOUS INJURY OR DEATH. INSPECT BEFORE EACH USE. SEE INSTRUCTIONS FOR INSPECTION PROCEDURES AND FOR RESTRICTIONS ON USE AND COMPATIBILITY. AVOID CONTACT WITH SHARP EDGES, ABRASIVE SURFACES, AND HEAT SOURCES. DO NOT USE AS AN ANCHORAGE CONNECTOR. SINGLE USER ONLY. Serial #: 12345678 412-03655 Rev A</p>
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<p>1) USER MUST INSPECT BEFORE EACH USE. 2) COMPETENT PERSON TO INSPECT AT LEAST ONCE EVERY (6) MONTHS. MARK OR PUNCH ON DATE GRID: A) INITIAL IN-SERVICE DATE B) DATE OF PASSED INSPECTION IF UNIT FAILS INSPECTION, REMOVE FROM SERVICE</p>	<table border="1"> <tr> <td style="writing-mode: vertical-rl; transform: rotate(180deg);">Initials:</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td style="writing-mode: vertical-rl; transform: rotate(180deg);">Date:</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> </table>	Initials:																					Date:																				
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9.0 Definitions

The following are general definitions of fall protection terms as defined by ANSI Z359.0-2012.

Anchorage - A secure connecting point or a terminating component of a fall protection system or rescue system capable of safely supporting the impact forces applied 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.

Authorized Person - A person assigned by the employer to perform duties at a location where the person will be exposed to a fall hazard.

Available Clearance - The distance from a reference point, such as the working platform, to the nearest obstruction that an authorized person might contact during a fall which, if struck, could cause injury.

Capacity - The maximum weight that a component, system or subsystem is designed to hold.

Certification - The act of attesting in writing that the criteria established by these standards or some other designated standard 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.

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.

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.

Competent Person - An individual designated by the employer to be responsible for the immediate supervision, implementation and monitoring of the employer's managed fall protection program who, through training and knowledge, is capable of identifying, evaluating and addressing existing and potential fall hazards, and who has the employer's authority to take prompt corrective action with regard to such hazards.

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

Connecting Subsystem - An assembly, including the necessary connectors, comprised of all components, subsystems, or both, between the anchorage or anchorage connector and the harness attachment point.

Connector - A component or element that is used to couple parts of the system together.

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.

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.

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

Fall Hazard - Any location where a person is exposed to a potential free fall.

Free Fall - The act of falling before a 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.

Harness, Full Body - A body support designed to contain the torso and distribute the fall arrest forces over at least the upper thighs, pelvis, chest and shoulders.

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.

Horizontal Lifeline Subsystem - An assembly, including the necessary connectors, comprised of a horizontal lifeline component and, optionally, of:
a) An energy absorbing component or, b) A lifeline tensioner component, or both. This subsystem is normally attached at each end to an anchorage or anchorage connector. The end anchorages have the same elevation.

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.

Horizontal Lifeline Subsystem – An assembly, including the necessary connectors, comprised of a horizontal lifeline component and, optionally, of:
a) An energy absorbing component or, b) A lifeline tensioner component, or both. This subsystem is normally attached at each end to an anchorage or anchorage connector. The end anchorages have the same elevation.

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 arrester, energy absorber, anchorage connector or anchorage.

Lanyard Connecting Subsystem - An assembly, including the necessary connectors, comprised of a lanyard only, or a lanyard and energy absorber.

Personal Fall Arrest System (PFAS) - An assembly of components and subsystems used to arrest a person in a free fall.

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.

Qualified Person - A person with a recognized degree or professional certificate and with extensive knowledge, training and experience in the fall protection and rescue field who is capable of designing, analyzing, evaluating and specifying fall protection and rescue systems.

Self-Retracting Device (SRD) - A device that contains a drum wound line that automatically locks at the onset of a fall to arrest the user, but that pays out from and automatically retracts onto the drum during normal movement of the person to whom the line is attached.

Snaphook - A connector comprised 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.

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.

APPENDIX A

Table 1A: Specifications for the FallTech Rescue Ladder				
Model #	Working Length	Materials and Specifications	Capacity and Standards	Images
685020	20' (6.1 m)	<p>Ladder Material:</p> <p>Polyester Tubular Webbing Minimum 3,600 lbs. (16 kN)</p> <p>Ladder Rungs:</p> <p>Steel</p> <p>Carabiner:</p> <p>5,000 lbs (22 kN) with 3,600 lbs (16 kN) Gate Strength</p>	<p>Single User Capacity:</p> <p>Up to 425 lbs. (192.8 kg) combined weight of user, tools, clothing, etc.</p>	