

# **Product Name: Skyhook Anchor**

Part #: 00300; 00310; 00320; 00330; 00340; 00342

## **Instruction** Manual

Do not throw away these instructions! Read and understand these instructions before using equipment!

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# Introduction

Thank you for purchasing a Guardian Fall Protection Skyhook Anchor. This manual must be read and understood in its entirety, and used as part of an employee training program as required by OSHA or any applicable state agency.

This and any other included instructions must be made available to the user of the equipment. The user must understand how to safely and effectively use the Skyhook Anchor, and all fall safety equipment used in combination with the Skyhook Anchor.

User Information							
Date of First Use:							
Serial #:							
Trainer:							
User:							

# **Applicable Safety Standards**

When used according to instruction specifications, this product meets or exceeds all applicable OSHA 1926 Subpart M, OSHA 1910, ANSI Z359.1-2007, and ANSI A10.32-2012 standards for fall protection. Applicable standards and regulations depend on the type of work being done, and also might include state-specific regulations. Consult regulatory agencies for more information on personal fall arrest systems and associated components.

### Worker Classifications



Understand the following definitions of those who work near or who may be exposed to fall hazards.

**Qualified Person:** A person with an accredited degree or certification, and with extensive experience or sufficient professional standing, who is considered proficient in planning and reviewing the conformity of fall protection and rescue systems.

**Competent Person:** A highly trained and experienced person who is ASSIGNED BY THE EMPLOYER to be responsible for all elements of a fall safety program, including, but not limited to, its regulation, management, and application. A person who is proficient in identifying existing and predictable fall hazards, and who has the authority to stop work in order to eliminate hazards.

Authorized Person: A person who is assigned by their employer to work around or be subject to potential or existing fall hazards.

It is the responsibility of a Qualified or Competent person to supervise the job site and ensure all applicable safety regulations are complied with.

## **Product Specific Applications**

WARNING Use of equipment in unintended applications may result in serious injury or death. Maximum 1 attachment per connection point.



**Personal Fall Arrest:** Skyhook Anchor may be used to support a MAXIMUM 1 PFAS for use in Fall Arrest applications. Structure must withstand loads applied in the directions permitted by the system of at least 5,000 lbs. Maximum free fall is 6', or up to 12' if used in combination with equipment explicitly certified for such use. Applicable D-ring: Dorsal.





**Restraint:** Skyhook Anchor may be used in Restraint applications. Restraint systems prevent workers from reaching the leading edge of a fall hazard. Always account for fully deployed length of lanyard/SRL. Structure must withstand loads applied in the directions permitted by the system of at least 1,000 lbs. No free fall is permitted. Restraint systems may only be used on surfaces with slopes up to 4/12 (vertical/horizontal). Applicable D-rings: Dorsal, Chest, Side, Shoulder.



**Work Positioning:** Skyhook Anchor may be used in Work Positioning applications. Work Positioning systems allow a worker to be supported while in suspension and work freely with both hands. Structure must withstand loads applied in the directions permitted by the system of at least 3,000 lbs. Maximum allowable free fall is 2'. Applicable D-rings: Side, Shoulder.

# For all applications: worker weight capacity range (including all clothing, tools, and equipment) is 130-420 lbs.

## Limitations

Fall Clearance: There must be sufficient clearance below the anchorage connector to arrest a fall before the user strikes the ground or an obstruction. When calculating fall clearance, account for a MINIMUM 3' safety factor, deceleration distance, user height, length of lanyard/SRL, and all other applicable factors.

# Diagram shown is an example fall clearance calculation ONLY.

Swing Falls: Prior to installation or use, make considerations for eliminating or minimizing all swing fall hazards. Swing falls occur when the anchor is not directly above the location where a fall occurs. Always work as close to in line with the anchor point as possible. Swing falls significantly increase the likelihood of serious injury or death in the event of a fall.

### Required distance from anchorage (19' total) Height of harness dorsal D-ring from worker's feet (6' total) Height of harness dorsal D-ring from sorrer's feet (6' total) Height for harness dorsal D-ring from worker's feet (6' total)

FALL CLEARANCE CALCULATION

**Compatibility:** When making connections with Skyhook Anchor, eliminate all possibility of roll-out. Roll-out occurs when interference between a hook and the attachment point causes the hook gate to unintentionally open and release. All connections must be selected and deemed compatible with Skyhook Anchor by a Competent Person. All connector gates must be self-closing and self-locking, and withstand minimum loads of 3,600 lbs. See the following for examples of compatible/incompatible connections:

Connector closed and locked to D-ring. **OK.** 

Two or more snap hooks or carabiners connected to each other. **NO**.





Connector to integral lanyard. **NO.** 



Connector directly to webbing. **NO.** 



Two connectors to same D-ring. NO.

Incompatible or irregular application, which may increase risk of roll-out, NO.





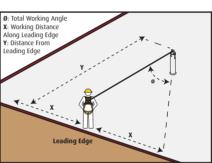
Application that places load on gate. NO.



### **Correct Anchorage Positioning:**

This chart details allowable working zones required to reduce risk of swing falls and improper side loading. ALWAYS adhere to information specified by chart.

Anchor Distance From Leading Edge (Y)	Working Distance Along Roof Edge (Either Direction) (X)	Working Angle From Perpendicular (Ø)
6'	8′	53°
10′	9' - 9"	45°
15′	11' - 7″	38°
20′	13' - 3″	33°
25′	14' - 6"	30°
30′	16′	28°
35′	17' - 2"	26°
40′	18′ - 3″	24°
45′	19' - 4"	23°
50′	19' - 10″	21°
55′	21' - 4"	21°
60′	22' - 3″	21°



For example, if the anchorage connector is 6' from the leading edge (Y), the working distance (X) is 8' in each direction from the perpendicular, which translates to a 53° working angle.

### **Components and Specifications**

#### Materials:

#00300, 00310, 00320, 00330, 00340: Powder-coated steel

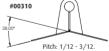


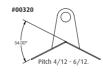
Fastener Installation Holes (30 total, 15 per side)

#00342: Powder-coated steel and Zinc-plated steel



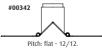














### Installation and Use

#### MINIMUM substrate requirements: Wood: 3/4" CDX. Metal: 20 gauge. Concrete: 6" (must be 2,000 p.s.i. or greater).

### Skyhook Anchor MUST install flush against substrate.

1. Determine desired location for anchor; ensure location is free of debris, rot, decay, cracking, and hazardous materials. NEVER install on gable ends, fascias, rake ends, overhangs, bottom cords, collar boards, spliced sections, or substrate incapable of withstanding application minimum loads.

2. Make considerations for eliminating or minimizing swing fall hazards.

3. ALWAYS measure roof pitch prior to installation. NEVER use Skyhook Anchor incompatible with roof pitch.

#### Guardian recommends Skyhook Anchors be placed no more than 20' apart. Skyhook Anchors MUST be placed a MINIMUM 10' from all leading edges of fall hazards. Installation MUST be done under supervision of a Competent Person.

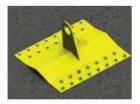
4. Ensure all fasteners are those supplied by Guardian Fall Protection, or are deemed compatible by a Competent Person.

5. For installations on wood and metal, use (30)  $\#14 \times 102''$  screws or better. All Fastener Installation Holes MUST be filled.

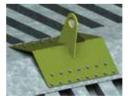
6. <u>For installations on concrete</u>, use (30) 3½" concrete fasteners that have been selected and deemed compatible with Skyhook Anchor by a Competent Person. Concrete installations must be done directly on substrate, and never through any intermediary substrates. All Fastener Installation Holes MUST be filled.

7. Connect to Skyhook Anchor with complete and compatible PFAS. All connector gates must be self-closing and self-locking, and must withstand MINIMUM loads of 3,600 lbs.

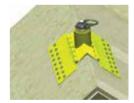
Example installations:



#00300 Pitch: Flat Substrate: 6" (2,000 p.s.i. concrete)



#00320 Pitch: 4/12 Substrate: 20g metal



#00342 Pitch: 10/12 Substrate: 3/4" CDX

Skyhook Anchors must be properly flashed to be used in permanent applications. It is the responsibility of the installer/roofer to properly flash this anchor.

Use Guardian Fall Protection flashing kit (#00352) with Skyhook Anchor:

- 1) Place large neoprene gasket at installation location.
- 2) Place Skyhook over large gasket.
- 3) Place small gasket over skyhook.
- 4) Install aluminum flashing over small gasket.





If removing and reinstalling a Skyhook Anchor, fully inspect the anchor according to instruction inspection specifications. DO NOT reuse if any signs of damage or defects are found. ALWAYS use new fasteners for each new installation application.

### Skyhook Anchor Horizontal Lifeline (HLL) Systems:

1. Skyhook Anchors may be used in HLL applications for use by up to 4 workers in Restraint, OR 1 worker in Fall Arrest. **Maximum HLL span length: 100'. Maximum recommended anchor spacing: 20'.** 

2. HLL cable MUST be 3/8'' galvanized cable. Ensure cable length will allow for a minimum 18'' of cumulative slack throughout entire HLL system.

3. To attach 3/8" cable, run cable through Connection Point of Skyhook Anchor, then run through gusset hole on back of the anchor, and bring back through the Connection Point. Secure cable to itself using a MINIMUM 3 compatible cable clamps (sold separately), as determined by a Qualified Person.

4. Run cable through series of Skyhook Anchor Connection Points, and terminate at Skyhook Anchor at end of desired run length. Secure cable by looping cable directly through Skyhook Anchor gusset hole and securing to itself with 3 compatible cable clamps; this will require Skyhook Anchor at end of span to be rotated 180° in relation to Skyhook Anchor at beginning of system. ALL Connection Points of Skyhook Anchors in horizontal lifeline system MUST be directly in line.

5. NEVER stretch cable tight. Allow 18" of cumulative slack throughout entire system. Measure cable slack at midpoint between two consecutive Skyhook Anchors, and repeat for entire system. NEVER use system in any application if less than 18" of cable slack exists.

### Maintenance, Cleaning, and Storage

If Skyhook Anchor fails inspection in any way, immediately remove it from service, and contact Guardian to inquire about its return or repair.

Cleaning after use is important for maintaining the safety and longevity of Skyhook Anchor. Remove all dirt, corrosives, and contaminants from Skyhook Anchor before and after each use. If Skyhook Anchor cannot be cleaned with plain water, use mild soap and water, then rinse and wipe dry. NEVER clean Skyhook Anchor with corrosive substances.

When not in use, store equipment where it will not be affected by heat, light, excessive moisture, chemicals, or other degrading elements.

### Inspection

Prior to EACH use, inspect Skyhook Anchor for deficiencies, including, but not limited to, corrosion, deformation, pits, burrs, rough surfaces, sharp edges, cracking, rust, paint buildup, excessive heating, alteration, and missing or illegible labels. IMMEDIATELY remove Skyhook Anchor from service if defects or damage are found, or if exposed to forces of fall arrest.

Ensure that applicable work area is free of all damage, including, but not limited to, debris, rot, rust, decay, cracking, and hazardous materials. Ensure that selected work area will support the application-specific minimum loads set forth in this instruction manual. Work area MUST be stable.

At least every 6 months, a Competent Person other than the user must inspect Skyhook Anchor. **Competent Person inspections MUST be recorded in inspection log in instruction manual and on equipment inspection grid label.** The Competent Person must sign their initials in the box corresponding to the month and year the inspection took place.

During inspection, consider all applications and hazards Skyhook Anchor have been subjected to.









### **Inspection Log**

Date of First Use: \_\_\_\_\_

Product lifetime is indefinite as long as it passes pre-use and Competent Person inspections. User must inspect prior to EACH use. Competent Person other than user must complete formal inspection at least every 6 months. Competent Person to inspect and initial.

This inspection log must be specific to one Skyhook Anchor. Separate inspection logs must be used for each Skyhook Anchor. All inspection records must be made visible and available to all users at all times.

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If equipment fails inspection IMMEDIATELY REMOVE FROM SERVICE.

### **Safety Information**



Failure to understand and comply with safety regulations may result in serious injury or death. Regulations included herein are not all-inclusive, are for reference only, and are not intended to replace a Competent Person's judgment or knowledge of federal or state standards.

Do not alter equipment. Do not misuse equipment.

Workplace conditions, including, but not limited to, flame, corrosive chemicals, electrical shock, sharp objects, machinery, abrasive substances, weather conditions, and uneven surfaces, must be assessed by a Competent Person before fall protection equipment is selected.

The analysis of the workplace must anticipate where workers will be performing their duties, the routes they will take to reach their work, and the potential and existing fall hazards they may be exposed to. Fall protection equipment must be chosen by a Competent Person. Selections must account for all potential hazardous workplace conditions. All fall protection equipment should be purchased new and in an unused condition.

Fall protection systems must be selected and installed under the supervision of a Competent Person, and used in a compliant manner. Fall protection systems must be designed in a manner compliant with all federal, state, and safety regulations. Forces applied to anchors must be calculated by a Competent Person.

Unless explicitly stated otherwise, the maximum allowable free fall distance for lanyards must not exceed 6'. No free fall allowed for non-LE SRLs. Class A SRLs must arrest falls within 24"; Class B SRLs must arrest falls within 54".

Harnesses and connectors selected must be compliant with manufacturer's instructions, and must be of compatible size and configuration. Snap hooks, carabiners, and other connectors must be selected and applied in a compatible fashion. All risk of disengagement must be eliminated. All snap hooks and carabiners must be self-locking and self-closing, and must never be connected to each other.



A pre-planned rescue procedure in the case of a fall is required. The rescue plan must be project-specific. The rescue plan must allow for employees to rescue themselves, or provide an alternative means for their prompt rescue. Store rescue equipment in an easily accessible and clearly marked area.

Training of Authorized Persons to correctly erect, disassemble, inspect, maintain, store, and use equipment must be provided by a Competent Person. Training must include the ability to recognize fall hazards, minimize the likelihood of fall hazards, and the correct use of personal fall arrest systems.

NEVER use fall protection equipment of any kind to hang, lift, support, or hoist tools or equipment, unless explicitly certified for such use.

Equipment subjected to forces of fall arrest must immediately be removed from use.

Age, fitness, and health conditions can seriously affect the worker should a fall occur. Consult a doctor if there is any reason to doubt a user's ability to withstand and safely absorb fall arrest forces or perform set-up of equipment. Pregnant women and minors must not use this equipment.

Physical harm may still occur even if fall safety equipment functions correctly. Sustained post-fall suspension may result in serious injury or death. Use trauma relief straps to reduce the effects of suspension trauma.

### Labels

#### #00300:

GUARDIAN		read and understand all inst nent at time of shipment fro				
Skyhook Anchor		A 1910, OSHA 1926 Subpart M, ANSI A10.32-2012 regulations.	Compatible roof pitch: flat.			
Part #: 00300	Only make compatible connections. Refer to instructions for proper installation and connection methods.					
Date of Manufacture:	All fasteners, equipment, and connections must be selected and deemed compatible with the Skyhook Anchor by a Competent Person. All fastener holes MUST be filled.					
Capacity range: 130-420 lbs.* (including all equipment)	M Wood: 3/4" CDX ply	inimum substrate thickness require wood. Metal: 20 gauge. Concrete: 6	ments: " (2,000 p.s.i. or greater).			
°see instructions. Materials: Powder-coated steel. 50045 (Rev. 8)	WARNING	Avoid contact with sharp and abe Avoid contact with all hazards, in electrical shock, corrosive substa	cluding, but not limited to.			

#### #00320:

GUARDIAN	Prior to use, read and understand all instructions provided with equipment at time of shipment from manufacturer.						
Skyhook Anchor	Compliant with all OSHA 1910, OSHA 1926 Subpart M, ANSI 2359, 1-2007, and ANSI A10.32-2012 regulations. 4/12 - 6/12.						
Part #: 00320 Date of Manufacture: Capacity range: 130-420 lbs.* (including all equipment)	Only make compatible connections. Refer to instructions for proper installation and connection methods.						
	All fasteners, equipment, and connections must be selected and deemed compatible with the Skyhook Anchor by a Competent Person. All fastener holes MUST be filled.						
	Minimum substrate thickness requirements: Wood: 3/4" CDX plywood. Metal: 20 gauge. Concrete: 6" (2,000 p.s.i. or greater).						
°see instructions. Materials: Powder-coated steel. 900-07 (Rev. B)	WARNING	Avoid contact with sharp and abrasive edges and surfa Avoid contact with all hazards, including, but not limite electrical shock, corrosive substances, and excessive ho					
www.guardianfall.com	6305 S. 231s	t St., Kent, WA 98032	1-800-466-638				

#### #00340:



Inspection Grid for all Skyhook Anchors:

SRID	User must inspect prior to EACH use. Competent Person must complete formal inspection every 6 months. Competent Person to inspect and initial. Date of first Use:Product lifetime is indefinite as long as equipment passes pre-use and Competent Person inspections.										35	spection ZOM SERVICE	LABELS		
INSPECTION GRID	YR	J	F	Μ	A	М	J	J	А	s	0	Ν	D	outs in OVE BS	IOVE
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### #00310:



#### #00330:

GUARDIAN	Prior to use, read and understand all instructions provided with equipment at time of shipment from manufacturer.						
Skyhook Anchor	Compliant with all OSHA 1910, OSHA 1926 Subpart M, ANSI 2359.1-2007, and ANSI A10.32-2012 regulations. 7/12 - 9/12.						
Part #: 00330	Only make compatible connections. Refer to instructions for proper installation and connection methods.						
Date of Manufacture:	All fasteners, equipment, and connections must be selected and deemed compatible with the Skyhook Anchor by a Competent Person. All fastener holes MUST be filled.						
Capacity range: 130-420 lbs.* (including all equipment)	Minimum substrate thickness requirements: Wood: 3/4" CDX plywood. Metal: 20 gauge. Concrete: 6" (2,000 p.s.i. or greater).						
'see instructions. aterials: Powder-coated steel. 50048 (Rev. 8)	WARNING	Avoid contact with sharp and abs Avoid contact with all hazards, in electrical shock, corrosive substa	cluding, but not limited to,				
www.guardianfall.com	6305 S. 231st	St., Kent, WA 98032	1-800-466-6385				

#### #00342:

