# GUARDIAN FALL PROTECTION



# **Product Name: Friction Fit Bracket**

Part #: 15026

## **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 Friction Fit Bracket. 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 Friction Fit Bracket, and all fall safety equipment used in combination with the Friction Fit Bracket.



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 and OSHA 1910 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**

**CAUTION** 

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.



## **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.

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".

Forces applied to anchors must be calculated by a Competent Person.

Harnesses and connectors selected must be compliant with manufacturer's instructions, and must be of compatible size and configuration.

A pre-planned rescue procedure in the case of a fall is required. The rescue plan must be projectspecific. 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.

Maintenance of equipment must be done according to manufacturer's instructions. Equipment instructions must be retained for reference.

Prior to EACH use, all equipment in a fall protection system must be inspected for any potential or existing deficiencies that may result in its failure or reduced functionality. IMMEDIATELY remove equipment from service if any deficiencies are found.

Equipment must be inspected by a Competent Person at least every six months. These inspections must be documented in equipment instruction manual and on equipment inspection grid label.

Equipment must be inspected for defects, including, but not limited to, the absence of required labels or markings, improper form/fit/function, evidence of cracks, sharp edges, deformation, corrosion, excessive heating, alteration, excessive wear, fraying, knotting, abrasion, and absence of parts.

Equipment that fails inspection in any way must immediately be removed from use, or repaired by an entity approved by the manufacturer.

No on-site repair of equipment unless explicitly permitted by Guardian Fall Protection.

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

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.

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.

Allowable individual worker weight limit (including all equipment), unless explicitly stated otherwise, is 130-310 lbs.



## Maintenance, Cleaning, and Storage

Repairs to Friction Fit Bracket can only be made by a Guardian Fall Protection representative o an entity authorized by Guardian. Contact Guardian for all maintenance and repair needs at: 1-800-466-6385. If a Friction Fit Bracket 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 Friction Fit Bracket. Remove all dirt, corrosives, and contaminants from Friction Fit Bracket before and after each use. If Friction Fit Bracket cannot be cleaned with plain water, use mild soap and water, then rinse and wipe dry. NEVER clean Friction Fit Bracket 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

KEEP INSTRUCTIONS AVAILABLE FOR REFERENCE. Record Date of First Use.

Prior to EACH use, inspect Friction Fit Bracket 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 Friction Fit Bracket 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 Friction Fit Bracket. **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 Friction Fit Bracket has been subjected to.





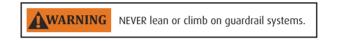
WARNING

## **Product Specific Applications**

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



Friction Fit Bracket may be used in Fall Prevention applications ONLY. Fall Prevention Systems are placed around the leading edges of any and all fall hazards to prevent a worker from going over an edge, and may be used in substitute of Fall Protection or safety netting systems. Installation requirements for Friction Fit Bracket set forth in this manual MUST be adhered to. Personal Fall Arrest, Work Positioning, Climbing, Rescue, and any other systems must NEVER be connected to Fall Prevention Systems.



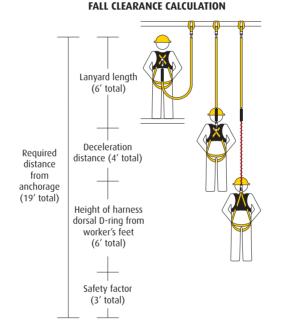
# Surfaces more than 6' above lower levels require the use of a Fall Prevention or Fall Protection system.





## 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.





**Compatibility:** When making connections with Friction Fit Bracket, 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 Friction Fit Bracket 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.** 



**P** 

Connector to integral lanyard. **NO.** 

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





Connector directly to webbing. **NO.** 

Two connectors to same D-ring. **NO.** 





Application that places load on gate. **NO.** 

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



Connector directly to horizontal lifeline. **NO.** 

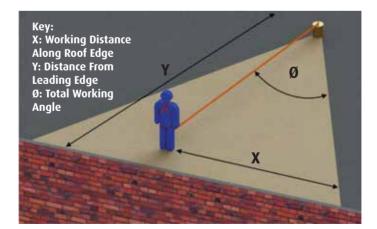


#### **Correct Anchorage Positioning:**

#### 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.

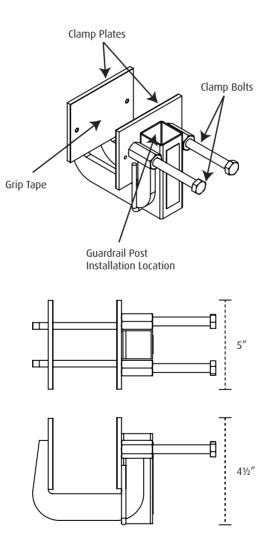




## **Components and Specifications**

Materials: zinc-plated steel.

Clamp Bolts: Zinc-plated steel. 1/2''-13 x 5", Grade 5.





## Installation and Use

#### Prior to use, plan your system:

#### MAXIMUM spacing between Friction Fit Brackets: 8'.

1. Upon complete assembly and installation, all leading edges of fall hazards must be blocked, or a supplemental Fall Protection system MUST be used in combination with, but never connected to, the applicable Fall Prevention system.

2. Selected work area must be free of all hazards, including, but not limited to, debris, rot, decay, cracking, and hazardous materials. NEVER install Friction Fit Brackets on top of gravel or other loose or slippery surfaces. Guardrail systems must be installed a MINIMUM 10' from power lines and all other electrical hazards.

3. All guardrail posts, guardrails, and all other equipment must be selected and deemed compatible by a Competent Person. All guardrails MUST be compatible  $2'' \times 4''$  or  $2'' \times 6''$  construction grade lumber, or compatible snap-on metal rails.

4. Toprails must be 42'' (+/- 3'') above the work surface or, if used in stilt work applications, 42'' plus height of stilts.

5. Midrails must be halfway between the top edge of the guardrail system and the working level (not the toeboard).

6. All intermediary rails (not the top rail or the midrail) must not allow for gaps greater than 19".

7. Toeboards are REQUIRED on surfaces with slopes more than 4/12 (vertical/horizontal).

8. Toeboards are REQUIRED if a risk exists for tools, equipment, materials, or other substances to fall down to a lower level.

9. Toeboards must be a minimum  $3\frac{1}{2}$ " from their top edge to the work surface, and must not have greater than  $\frac{1}{4}$ " clearance between their bottom edge and the work surface.

10. Lay out the job by measuring and spacing the location of Friction Fit Brackets on the work surface. Failure to properly measure and plan ahead may result in having to move and reinstall system components.

# Friction Fit Brackets MUST be installed flush against substrate, and must allow guardrail posts to be positioned perpendicular to work surface.

#### Substrate MUST be deemed compatible with Friction Fit Brackets by a Competent Person.



#### Installation:

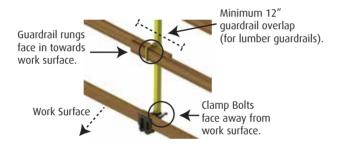
1. Loosen Clamp Bolts so Friction Fit Bracket will fit over selected  $2'' \times 4''$  fascia board. Friction Fit Bracket must be installed from bottom of fascia board. Clamp Bolts must face away from work area.

2. Place Friction Fit Bracket onto selected fascia board, and ensure that, when closed, Clamp Plates will lie completely flush against fascia board.

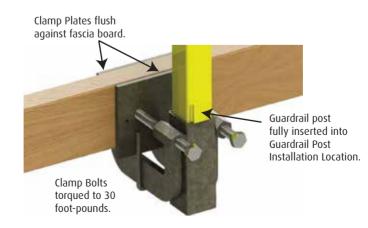
3. Tighten both Clamp Bolts to 30 foot-pounds. Use a correctly calibrated torque wrench to ensure both Clamp Bolts are torqued properly.

4. Repeat steps 1-3 for all Friction Fit Brackets at all selected installation locations.

5. Install all required guardrail posts into Friction Fit Bracket Guardrail Post Installation Locations. Guardrail post rungs must face in towards work surface.

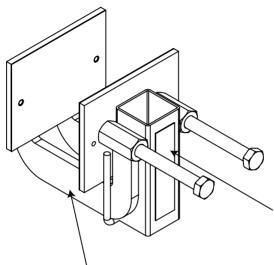


6. Install all guardrails. Guardrails may be compatible snap-on metal rails, or 2" x 4" or 2" x 6" construction grade lumber. If using lumber guardrails, guardrails MUST overlap a minimum of 12" at each end between consecutive guardrail posts.





## Labels



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## **Inspection Log**

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.

Date of First Use: \_\_\_\_\_\_. Product lifetime is indefinite, as long as it passes pre-use and Competent Person inspections.

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

	J	F	M	A	M	J	J	A	S	0	Ν	D
YR												
YR												
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If equipment fails inspection IMMEDIATELY REMOVE FROM SERVICE.

### Notes