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Introduction

Thank you for purchasing a Guardian Fall Protection 2-Way Standing Seam Roof Clamp. 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 2-Way Standing Seam Roof Clamp, and all fall safety equipment used in combination with the 2-Way Standing Seam Roof Clamp.

| 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 regulations if applicable. 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.

Safety Information



The failure to understand and comply with safety regulations may result in serious injury or death. The regulations included herein are not all-inclusive, are for reference only, and are not intended to replace a Competent Person's judgement 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. 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 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.

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 2-Way Standing Seam Roof Clamps can only be made by a Guardian Fall Protection representative or an entity authorized by Guardian. Contact Guardian for all maintenance and repair needs at: 1-800-466-6385. If a 2-Way Standing Seam Roof Clamp 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 2-Way Standing Seam Roof Clamps. Remove all dirt, corrosives, and contaminants from 2-Way Standing Seam Roof Clamps before and after each use. If a 2-Way Standing Seam Roof Clamp cannot be cleaned with plain water, use mild soap and water, then rinse and wipe dry. NEVER clean 2-Way Standing Seam Roof Clamps 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 2-Way Standing Seam Roof Clamp for deficiencies, including, but not limited to, corrosion, deformation, pits, burrs, rough surfaces, sharp edges, cracking, rust, paint buildup, excessive heating, alteration, broken stitching, fraying, bird-caging, and missing or illegible labels. IMMEDIATELY remove 2-Way Standing Seam Roof Clamp 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 2-Way Standing Seam Roof Clamps. **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 2-Way Standing Seam Roof Clamps have been subjected to.

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: 2-Way Standing Seam Roof Clamps may be used in Personal Fall Arrest applications to support a MAXIMUM 1 Personal Fall Arrest System (PFAS). Structure must withstand loads applied in the directions permitted by the system of at least 5,000 lbs. Maximum free fall is 6'. Applicable D-ring: Dorsal.



Restraint: 2-Way Standing Seam Roof Clamps 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.

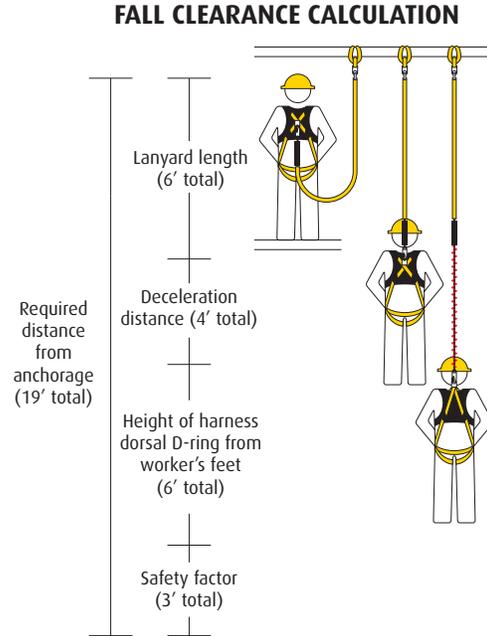
For all applications: worker weight capacity range (including all clothing, tools, and equipment) is 130-310 lbs.

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.

Compatibility: When making connections with 2-Way Standing Seam Roof Clamps, 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 2-Way Standing Seam Roof Clamps 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.**



Connector to integral lanyard. **NO.**

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



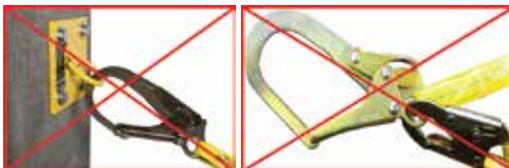
Connector directly to webbing. **NO.**

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.**

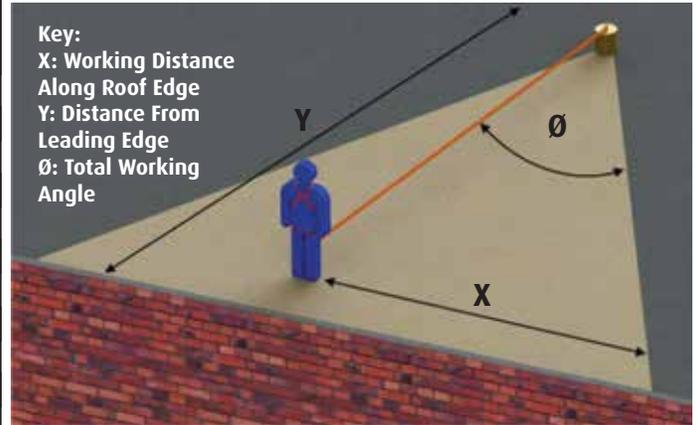


Connector directly to horizontal lifeline. **NO.**

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.

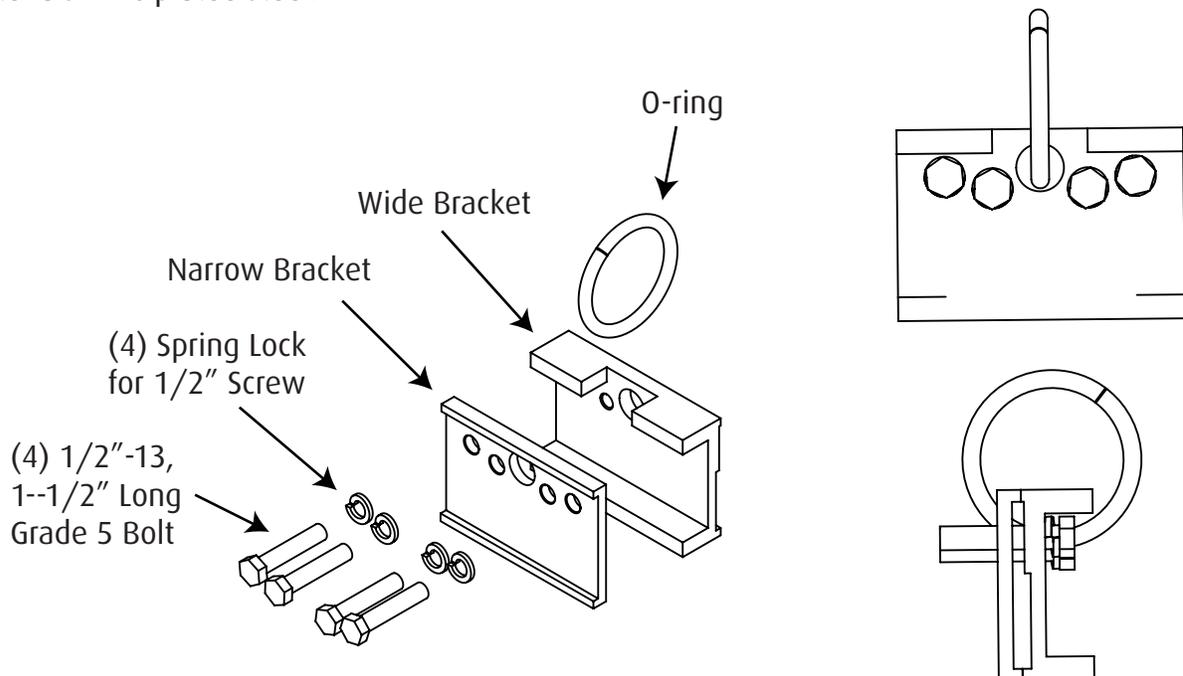
| Anchor Distance From Leading Edge (Y) | Working Distance Along Roof Edge (Either Direction) (X) | Working Angle From Perpendicular (θ) |
|---------------------------------------|---|---|
| 6' | 8' | 53° |
| 10' | 9' - 9" | 45° |
| 15' | 11' - 7" | 38° |
| 20' | 13' - 3" | 33° |
| 25' | 14' - 6" | 30° |
| 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.



Installation and Use

Prior to installation, plan your system:

1. All PFAS equipment must be selected and deemed compatible with 2-Way Standing Seam Roof Clamp by a Competent Person.
2. Eliminate or minimize all risk of swing fall hazards.
3. Ensure installation location and work surface are free of all damage, including, but not limited to, corrosion, rot, rust, debris, and sharp or abrasive edges and surfaces.



WARNING Prior to installation, a Qualified Person must deem 2-Way Standing Seam Roof Clamp as compatible with applicable roof seam.

Installation:

1. 2-Way Standing Seam Roof Clamp is designed for use on a standing seam roof ONLY.
2. 2-Way Standing Seam Roof Clamp MUST be attached to a fully seamed panel and MUST be attached over a clip that is bolted/screwed down.
3. Clamp must be positioned a minimum 4' from all edges of fall hazards.
4. Clamp flange must be hooked under the seam before the four bolts are tightened.
5. Tighten top two bolts until snug, then tighten bottom two bolts until snug.
6. Tighten top two bolts to 50 ft./lbs., then tighten bottom two bolts to 50 ft./lbs. Ensure anchor is fully secured to roof seam and no possibility exists for detachment.
7. Attach complete and compatible PFAS to 2-Way Standing Seam Roof Clamp O-ring.



Labels

 For reference only. Date of Manufacture to be: mo/year.

5--1/2"

2"

| | | | |
|---|--|---|---|
| <p>GUARDIAN FALL PROTECTION PERFORMANCE SAFETY GEAR</p> | <p>2-Way Standing Seam Roof Clamp</p> | | <p>Part# 10600</p> <p></p> <p>90130 (Rev. A) Made in China</p> |
| | <p>6305 S. 231st St. Kent, WA 98032</p> | <p>1-800-466-6385 www.guardianfall.com</p> | |
| <p>Compliant with OSHA 1910 and 1926 Subpart M, ANSI Z359.1-2007, and ANSI A10.32-2012 regulations. Materials: S45C Steel Main Body; A36 HRS O-ring; Zinc-Plated Finish. Specifications: 5,000 lb. minimum breaking strength. Weight capacity: 130-310 lbs.</p> | <p>Inspection: Inspect this unit prior to each use. Look for any deformation, cracks, or excessive rust. If any of these conditions or any other damage exist, remove the product from service immediately!</p> | <p>WARNING Only make compatible connections. Do not use oversized snap hooks or carabiners to attach to this device. Do not install near electrical equipment. Only use self locking snap hooks and carabiners. Improper use of this device can result in serious injury or death!</p> | |
| <p>PRIOR TO USE, READ AND UNDERSTAND MANUFACTURER'S INSTRUCTIONS PROVIDED WITH EQUIPMENT.</p> | | | |

3--3/4"

2"

| | | | | | | | | | | | | | |
|------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|
| INSPECTION GRID | <p>User must inspect prior to EACH use. Competent Person must complete formal inspection every 6 months. Competent Person to inspect and initial.</p> <p>Date of First Use: _____ . Product lifetime is indefinite as long as equipment passes pre-use and Competent Person inspections.</p> | | | | | | | | | | | | |
| | YR | J | F | M | A | M | J | J | A | S | O | N | D |
| | 20__ | | | | | | | | | | | | |
| | 20__ | | | | | | | | | | | | |
| | 20__ | | | | | | | | | | | | |
| | 20__ | | | | | | | | | | | | |
| | 20__ | | | | | | | | | | | | |

If equipment fails inspection IMMEDIATELY REMOVE FROM SERVICE

DO NOT REMOVE LABELS

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 2-Way Standing Seam Roof Clamp. Separate inspection logs must be used for each 2-Way Standing Seam Roof Clamp. All inspection records must be made visible and available to all users at all times.

| | J | F | M | A | M | J | J | A | S | O | N | D |
|----|---|---|---|---|---|---|---|---|---|---|---|---|
| YR | | | | | | | | | | | | |
| YR | | | | | | | | | | | | |
| YR | | | | | | | | | | | | |
| YR | | | | | | | | | | | | |
| YR | | | | | | | | | | | | |

If equipment fails inspection IMMEDIATELY REMOVE FROM SERVICE.

Notes
