

GUARDIAN

FALL PROTECTION



Product Name: Standing Seam Roof Clamp

Part #: 00250

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 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 Standing Seam Roof Clamp, and all fall safety equipment used in combination with the 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-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



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



Personal Fall Arrest: Standing Seam Roof Clamp 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: Standing Seam Roof Clamp may be used in Restraint applications. Restraint systems prevent workers from reaching leading edge of fall hazard. Always account for fully deployed length of 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.

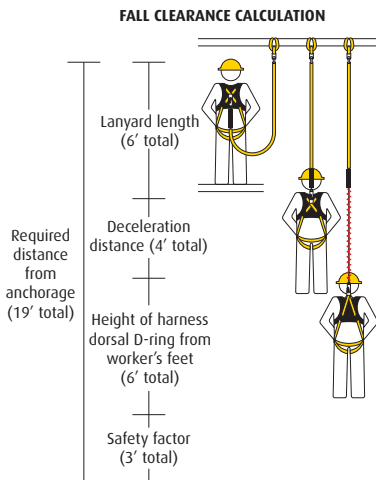
For all applications: worker weight capacity range (including all clothing, tools, and equipment) is 130-310 lbs.

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 Standing Seam Roof Clamp, 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 Standing Seam Roof Clamp by a Competent Person. All connector gates must be self-closing and self-locking, and withstand minimum loads of 3,600 lbs. See 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.**



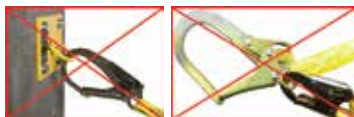
Connector directly to webbing. **NO.**

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.**

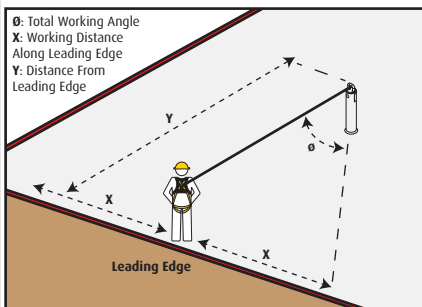


Connector directly to horizontal lifeline. **NO.**

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°



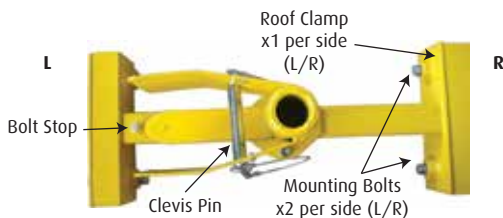
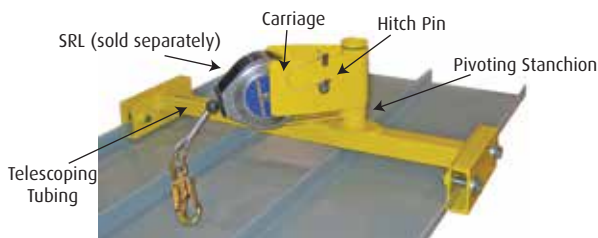
For example, if the anchorage connector is 6' from the leading edge (Y), the working distance (X) is 8' in each direction from the perpendicular, which translates to a 53° working angle.

Prior to installation, ALWAYS refer to the table below to determine if Standing Seam Roof Clamp is incompatible with the selected roof seam. If selected roof appears on table, DO NOT install.

Panel Manufacturer	Panel Name	Material Thickness	Panel Manufacturer	Panel Name	Material Thickness	Panel Manufacturer	Panel Name	Material Thickness
AB Martin Roofing	AB Seam 19.5	24 ga steel	ATAS	Dutch Seam	0.032 Aluminum	Englert	Series 1500	0.032 Aluminum
ACP Span	Klip Rib	24 ga steel	BEMO	MRO-150	1mm Aluminum	Englert	Series 1500	24 ga steel
Alcan/Novelis	Falconn 25mm DFSS	0.7mm Aluminum	Bryer Company	VF Profile	1mm Aluminum	Englert	Series 2000	0.032 Aluminum
Architectural Metal Products	Ultra Seam US200S	0.4 Aluminum	Bryer Company	TBS Superseam (Double Fold)	0.032 Aluminum	Englert	Series 2400	0.032 Aluminum
Architectural Metal Specialties, Inc.	AMS 175 1-3/4" Snap-Lock	0.032 Aluminum	Coated Metals	Ultra Flange 1.0	24 ga steel	Englert	Series 2500 (DBF)	0.032 Aluminum
Architectural Metal Specialties, Inc.	AMS200 2"	0.4 Aluminum	Coated Metals	Ultra Flange 1.0	26 ga steel	Everlast Roofing Inc	Everseam	24 ga steel
Architectural Metal Specialties, Inc.	Mechanical Lock	0.4 Aluminum	Corus	Falzine	0.7 mm Aluminum	Fielders Steel Roofing	KingKlip 700 (Intermediate Rib)	0.5mm steel
Architectural Metal Specialties, Inc.	2" Mechanical Lock 90 degree	0.4 Aluminum	Corus	Kalzip 65	0.9 mm Aluminum	Firestone	UC3	0.04 Aluminum
Architectural Metal Specialties, Inc.	UltraSeam US 175SL Snap-Lock	0.032 Aluminum	Custom Built Metals	CB 150 (Double Fold) NI	0.032 Aluminum	Follansbee Steel	1" (25mm) DF ICST	28 ga ss steel
Armor Building Supply	Armor Clip	26 ga steel	Custom Built Metals	SL 1750 NT	0.032 Aluminum	Future Roof	Snap Lock 1"	26 ga steel
ASC Building Products	Skyline	26 ga steel	Drexel Metals	DMC 150 SS (DBF)	0.032 Aluminum	Garland	R-Mor Loc	0.032 Aluminum
ATAS	Dutch Seam MRO-150	24 ga steel	Drexel Metals	DMC 150 SL	24 ga steel	Garland	R-Mor Loc	0.04 Aluminum
ATAS	Dutch Seam MRO-150	0.4 Aluminum	Drexel Metals	DMC 150 SL	26 ga steel	Garland	R-Mor Span	0.04 Aluminum
			Drexel Metals	DMC 1755 Snap Lock 1-3/4	0.032 Aluminum	Imetco	Series 300	0.032 Aluminum
			Drexel Metals	DMC 210 S (Armco Style DBF)	0.032 Aluminum	Imetco	Series 300	0.04 Aluminum
			Englert	Series 1101	0.032 Aluminum	Imetco	Snap Lok 1-3/4"	0.032 Aluminum
			Englert	Series 1101	24 ga steel	Impel	Grobelkoemt (Snap Lock 1"	0.027 Aluminum
			Englert	Series 1300 (DBF) 1-1/2"	0.032 Aluminum	Interlock Roofing	Snap Lock 1"	0.027 Aluminum
						Kingspan UK	KingZip	0.9mm Aluminum
						KME	TECU 25mm DFSS	0.7 mm Copper
Panel Manufacturer	Panel Name	Material Thickness	Panel Manufacturer	Panel Name	Material Thickness	Panel Manufacturer	Panel Name	Material Thickness
KME	TECU Jin 25mm DFSS	0.7 mm Copper	New Tech Machinery	SS 450 SL	26 ga steel	Tremco	TremLock VP	0.032 Aluminum
McElroy Metals	Maxima 2"	0.032 Aluminum	New Tech Machinery	SS 675 Snap Lock 1-3/4"	0.032 Aluminum	Umicore/VM Zinc	Tizin 25mm DFSS	0.7mm Zinc
McElroy Metals	Meridian	24 ga steel	New Tech Machinery	SS 675 Snap Lock 1-3/4"	0.032 Aluminum	Una Clad	UC3	0.04 Aluminum
McElroy Metals	Meridian	26 ga steel	NU Ray	Series 1000	24 ga steel	Union Corrugating Company	Advantage Lok II	24 ga steel
McElroy Metals	Mirage	24 ga steel	NU Ray	Series 1000	24 ga steel	Union Corrugating Company	SL 150	24 ga steel
McElroy Metals	Zip Rib	1mm Zinc	OC Metals	OC Metals	24 ga steel	Union Corrugating Company	SL 150	24 ga steel
Metal Fab Manufacturing	MetFab Historic Panel 1.5" (DBF)	0.032 Aluminum	OC Metals	OCM 150 SL	26 ga steel	Vic West Co	Prestige	24 ga steel
Metal Fab Manufacturing	MetFab III Panel (DBF)	0.032 Aluminum	Prefa	Prefalz 25 mm DFSS	0.7mm Aluminum	Zintek Srl	24mm Double Standing Seam	0.7mm Zinc
Metal Fab Manufacturing	MetFab SnapOn 675	0.032 Aluminum	Rheinzink	Prewathered 25mm DFSS	0.8 Zinc	Zintek Srl	24mm Double Standing Seam	0.8mm Zinc
Nezink	NATURTE 24mm Double Fold	0.7 mm Zinc	Rheinzink	Tizin 25mm DFSS	0.7 Zinc	Zintek Srl	38mm Double Standing Seam	0.7mm Zinc
New Tech Machinery	SS 150 (Double Fold)	0.032 Aluminum	Schlebach	1.5 Nail Strip	24 ga steel	Zintek Srl	38mm Double Standing Seam	0.8mm Zinc
New Tech Machinery	SS 210A (Double Fold)	0.032 Aluminum	Schlebach	1.5 Nail Strip	26 ga steel			
New Tech Machinery	SS 450	24 ga steel	SpeedDeck Building Systems	SpeedDeck Intermediate Rib	0.6mm steel			
New Tech Machinery	SS 450 SL	24 ga steel	SpeedDeck Building Systems	SpeedDeck Intermediate Rib	0.9mm Aluminum			
			SpeedDeck Building Systems	SpeedDeck Lapped Rib	0.9mm Aluminum			
			Taylor Metals	Easy Lock Standing Seam	26 ga steel			
			Tegral Metal Form	Tegral Alu-Seam	0.9mm Aluminum			

Components and Specifications

Materials: powder-coated and galvanized steel.



WARNING

Prior to installation, a Qualified Person must determine Standing Seam Roof Clamp is compatible with roof seam.

Installation and Use

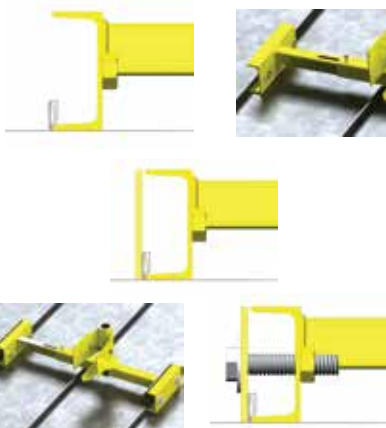
Prior to installation, plan your system:

Compatible seam spacing: 24" - 36".

1. Ensure applicable roof is compatible with Standing Seam Roof Clamp. Refer to chart on pg. 3. If roof seam appears on chart, it is incompatible. NEVER install on incompatible roof.
2. Inspect work area to ensure the absence of all hazards, including, but not limited to, debris, rot, rust, heat, corrosive chemicals, machinery, electric shock, and sharp or abrasive edges or surfaces.
3. All components of the personal fall arrest system must be selected and deemed compatible with the Standing Seam Roof Clamp by a Competent Person. SRL to be used in combination with Standing Seam Roof Clamp MUST have Leading Edge capability.
4. Eliminate or minimize all risk of swing fall hazards.
5. When used in Fall Arrest applications, harness dorsal D-ring MUST ALWAYS remain level with or below Standing Seam Roof Clamp.
6. Standing Seam Roof Clamp is a temporary anchorage connector ONLY.

Installation:

1. Loosen (4) Mounting Bolts from their respective Roof Clamps so that there is space for Roof Clamps to fit over applicable metal roof seams.
2. Place Standing Seam Roof Clamp at the selected installation location, and adjust Telescoping Tubing so that the bent sides of Roof Clamps will hook underneath lip of metal roof seam.
3. Place Roof Clamp around roof seams. Ensure that bent side of each clamp is underneath the lip of each respective metal roof seam. Flat sides of Roof Clamps **MUST** be flush with flat sides of roof seams.
4. Tighten all Mounting Bolts to secure Standing Seam Roof Clamp to metal roof. **ALL** Mounting Bolts **MUST** be torqued to 50 foot-pounds.
5. Prior to **EACH** use, re-torque all Mounting Bolts to 50 foot-pounds.



It is critical to properly torque Mounting Bolts. Mounting Bolts hold Standing Seam Roof Clamp onto metal roof. If not installed according to instructions, Standing Seam Roof Clamp could pull off the metal roof in the event of a fall.

6. To install Leading Edge SRL, 1) Remove Clevis Pin; 2) Slide SRL horizontally into Carriage; 3) Reinsert Clevis Pin through Carriage and through SRL anchorage connector attachment point; 4) Insert Hitch Pin through Clevis Pin and ensure both pins are snug and fully secured.



Retractable Swivel Adapter (product #10975):

If used with a SRL from 50' - 65' in length, an additional extension attachment accessory (not included) is required. Refer to supplemental instructions provided with attachment for additional installation instructions.

Maintenance, Cleaning, and Storage

If 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 Standing Seam Roof Clamp. Remove all dirt, corrosives, and contaminants from Standing Seam Roof Clamp before and after each use. If Standing Seam Roof Clamp cannot be cleaned with plain water, use mild soap and water, then rinse and wipe dry. **NEVER** clean Standing Seam Roof Clamp 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 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, and missing or illegible labels. IMMEDIATELY remove 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 Standing Seam Roof Clamp. **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 Standing Seam Roof Clamp 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 Standing Seam Roof Clamp. Separate inspection logs must be used for each Standing Seam Roof Clamp. 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

GUARDIAN
FALL PROTECTION

1-800-466-6385 6305 S. 231st St.
www.guardianfall.com Kent, WA 98032

Standing Seam Roof Clamp
Part #: 00250

Prior to use, read and understand all instructions provided with equipment at time of shipment from manufacturer.

Compliant with all OSHA 1926 Subpart M, ANSI Z359.1-2007, and ANSI A10.32-2012 regulations.

Date of Manufacture: XXXX Worker Capacity: 130-310 lbs.
(including all equipment).

Material: powder-coated steel.

Structure must be capable of withstanding minimum load of 5,000 lbs.

Ensure all connections are chosen by a Competent Person and are compatible with the Standing Seam Roof Clamp.

⚠ WARNING

Avoid contact with electrical and chemical hazards.
Avoid contact with sharp edges and abrasive surfaces.

90060 (Rev. E) **DO NOT REMOVE LABELS** Made in China

INSPECTION GRID

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.

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If equipment fails inspection
IMMEDIATELY REMOVE FROM SERVICE

DO NOT REMOVE LABELS