

FRONTLINE

FALL PROTECTION

R02W - 2 Way Standing Seam Roof Anchor Installation Instructions



Zinc-Plated Steel Anchorage Device
Galvanized O-Ring: 3.75" Round
Galvanized O-Ring Thickness: 0.4"
Anchor Size: 2" x 4" x 6"
Base Thickness: 3/8"
Bolts: 1/2"-13, 2-1/2" Grade 5
with 1/2" Lock Washers

Strength Rating: 5,000 lbs
Capacity: 130-310 lbs.
(Worker with Tools)

Do not throw away these instructions! Read and understand these instructions before using this device.

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.

See www.osha.gov for all regulations and standards.



On-line 2-Way
Standing Seam Anchor
Instructions

Instruction #08337
E1727; Rev. 2/27/20
Made in China

FRONTLINE

FALL PROTECTION

info@frontlinefall.com

www.frontlinefall.com

2 Way Roof Anchor Installation Instructions



WARNING

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This product is part of a personal fall arrest system. The users must read and abide by the manufacturer's instructions for each element of the system. Installation of this roof anchor must be certified by a qualified person or engineering service. These directions must be given to the users of this equipment. The users must read and understand these instructions or have them explained to them before using this equipment. Manufacturer's instructions must be followed for proper use, care and maintenance of this product. Alterations or misuse of this product or failure to follow instructions, may result in serious injury or death.

Specifications/Definitions:

This fall arrest anchor is for single users in fall arrest or multiple users in fall restraint on a low slope roof application (4/12 pitch or less). A horizontal lifeline may be used with the CRA's when designed by a qualified person. No more than two workers may tie off to a horizontal lifeline that is connected to a CRA.

Fall Restraint System - A fall restraint system (FRS) prevents the user from falling. The system is comprised of a body harness along with an anchorage, connectors and other equipment. The components typically include a lanyard and also may include a lifeline and other devices.

Personal Fall Arrest System (PFAS) - Fall protection must be provided if workers are exposed to a fall of 6 feet or more to a lower level. When used properly, this will arrest a fall and prevent the worker from contacting a lower level. A PFAS consists of an anchor, a harness, and a lifeline or lanyard (usually with a deceleration device). A PFAS must be used properly to be effective. Adjust the harness to fit snugly. The D-ring attachment for the harness should be centered between the worker's shoulder blades and the leg straps should be adjusted until they are snug. Fall arrest systems must be designed and set up to prevent a worker from free falling more than 6 feet or contacting a lower level (e.g., the floor or the ground) (29 CFR 1926.502(d)(16)(iii)).

Body Belts - Body belts are not acceptable in a PFAS because they can cause serious injury during a fall (29 CFR 1926.502(d)).

Anchorage - An anchorage is a secure point of attachment for lifelines, lanyards, or deceleration devices.

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.

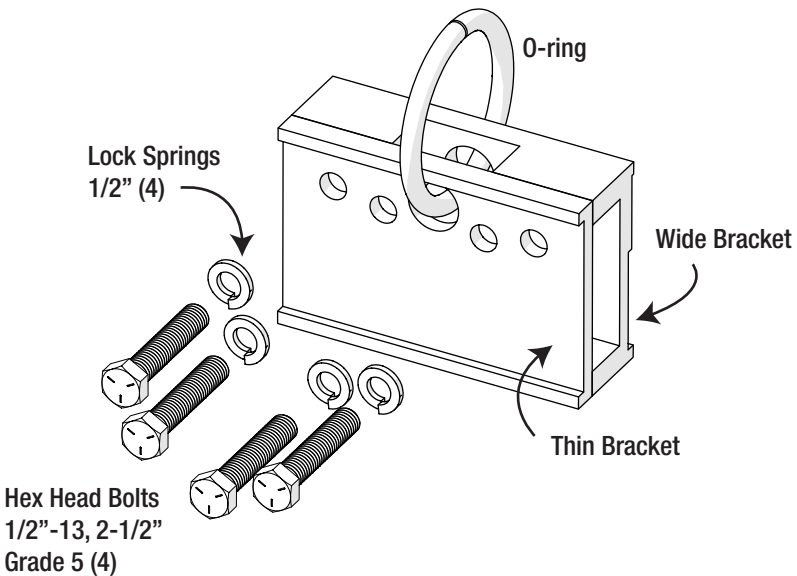
Competent Person - A person who is proficient in identifying existing and predictable fall hazards, and who has the authority to stop work in order to eliminate hazards. A highly trained and experienced person who is assigned by the employer to be responsible for all elements of a fall safety program,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

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.

Components and Material Specifications

Materials: Zinc-Plated Steel.





DANGER

DANGER

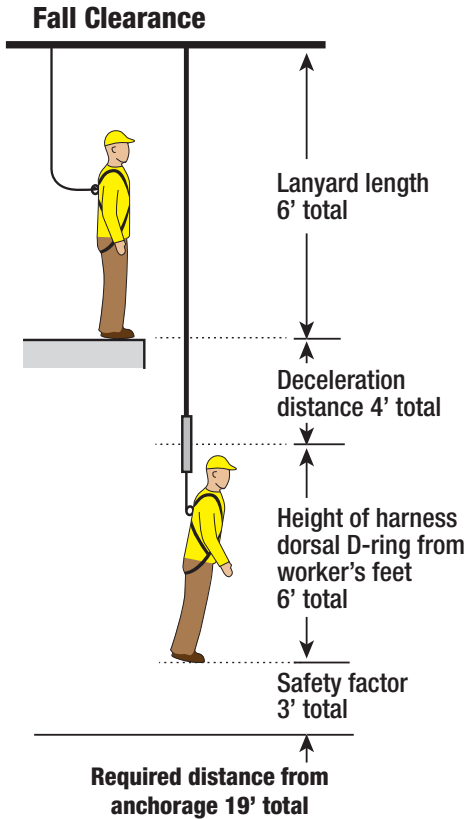
DANGER

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

Fall Clearance

The total fall distance is the minimum vertical distance between the worker and a lower level that is necessary to ensure that the worker avoids contact with the lower level during a fall. It is important that employers calculate this distance before work begins to ensure that the proper fall protection equipment is selected for the location. To determine the total fall distance, several factors must be taken into consideration:

- **Free Fall Distance:** The distance the worker falls before the PFAS begins to slow the fall. This distance must be 6 feet or less for a PFAS (29 CFR 1926.502(d)(16)(iii)).
- **Deceleration Distance:** The distance the lanyard stretches in order to arrest the fall. OSHA requires that this distance be no greater than 4 feet (29 CFR 1926.502(d)(16)(iv)), but it may be less for some PFAS equipment.
- **D-ring Shift:** How far the D-ring shifts and the harness stretches when it supports the full weight of a fallen worker, including the weight of tool belts and other attached equipment or tools. Employers typically assume this shift is 1 foot, but it can vary, depending on the equipment design and the manufacturer.
- **Back D-ring Height:** The height of the D-ring, measured as the distance between the D-ring and the sole of the worker's footwear. Employers often use a standard distance of 5 feet for this height, assuming a worker who is 6 feet tall. The D-ring height needs to be adjusted for very tall workers, and for shorter workers as well.
- **Safety Margin:** An additional distance (typically a minimum of 3 feet) to ensure that there is enough clearance between the worker and the lower level after a fall.



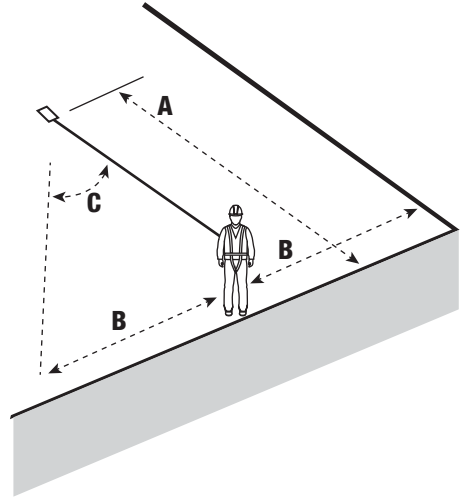
Connections

When making connections, 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 anchors by a competent person. All connector gates must be self-closing and self-locking, and withstand minimum loads of 3,600 lbs.

Anchor Positioning

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

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



Anchor Distance From Leading Edge (A)	Working Distance Along Roof Edge (Either Direction) (B)	Working Angle From Perpendicular (C)
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°

WARNING**WARNING****WARNING****WARNING**

Personal Fall Arrest: Structure must withstand loads of at least 5,000 lbs. 2-Way Standing Seam Roof Clamp may be used to support a **MAXIMUM** 1 PFAS for use in Fall Arrest applications. Maximum free fall is 6', or up to 12' if used in combination with equipment explicitly certified for such use.

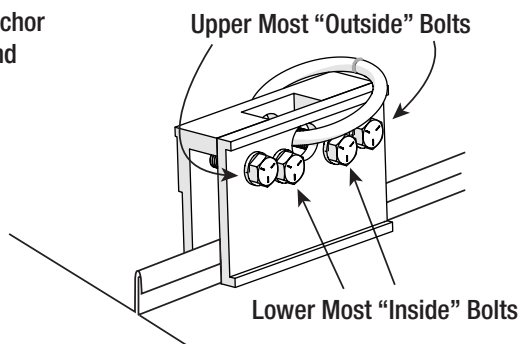
Prior to Installation, Plan Your System:

1. All PFAS equipment must be selected and deemed compatible with 2-Way Standing Seam Roof Anchor Clamp by a Competent Person.
2. Any swing or fall hazards must be eliminated or minimized.
3. Installation location and work surface should be free of all damage, including, but not limited to, corrosion, rot, rust, debris, and sharp or abrasive edges and surfaces.
4. Never for use in combination with horizontal lifelines (HLLs), unless HLL is installed in a manner such that 2-Way Standing Seam Roof Anchor Clamp is not subjected to a side load. All loading of 2-Way Standing Seam Roof Anchor Clamp must be done in-line with standing seam; refer to anchorage positioning chart on pg. 5.

MINIMUM required standing seam roof thickness: 24 gauge.

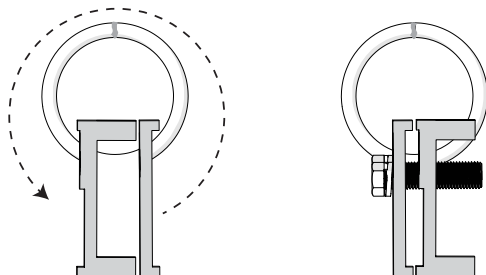
Installation:

1. 2-Way Standing Seam Roof Anchor Clamp is designed for use on a standing seam roof **ONLY**.
2. 2-Way Standing Seam Roof Anchor Clamp **MUST** be attached to a fully seamed panel and **MUST** be attached over a clip that is bolted/screwed down.
3. 2-Way Standing Seam Roof Clamp must be positioned a minimum 4' from leading edge(s) of fall hazard(s).
4. Hook 2-Way Standing Seam Roof Anchor Clamp flange under selected roof seam. This must be done before bolts are tightened.
5. Tighten Both outside bolts until snug, then tighten both inside bolts until snug.
6. Tighten outside bolts to 50 ft./lbs., then tighten inside bolts to 50 ft./lbs.
Ensure 2-Way Standing Seam Roof Anchor Clamp 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.



Alternate Configuration

To fit to narrower seam, remove all bolts and rotate anchor plate around O-ring to opposite side, then insert bolts and install as normal.



WARNING and Inspection Labels

The Competent Person must sign their initials in the box corresponding to the month and year the inspection took place. If either labels are damaged or unreadable please contact Frontline for replacements.

<p style="font-size: 2em; font-weight: bold; margin: 0;">FRONTLINE</p> <p style="font-size: 0.8em; font-weight: bold; margin: 0;">FALL PROTECTION</p> <p style="font-size: 0.8em; margin: 5px 0 0 0;">www.frontlinefall.com info@frontlinefall.com</p> <p style="font-size: 0.8em; margin: 0;">Made in China</p>	<p style="font-weight: bold; margin: 0;">2-Way Standing Seam Roof Anchor Clamp Part #R02W</p> <p style="font-weight: bold; margin: 0;">PRIOR TO USE, READ AND UNDERSTAND MANUFACTURER'S INSTRUCTION PROVIDED WITH THIS DEVICE.</p> <p style="font-size: 0.8em; margin: 5px 0 0 0;">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. Specification: 5,000 lbs. minimum breaking strength. Weight capacity: 130-310 lbs.</p> <p style="font-weight: bold; margin: 0;">INSPECT THIS DEVICE PRIOR TO EACH USE.</p> <p style="font-size: 0.8em; margin: 0;">Inspect for any damage, cracks, excessive wear or rust. If any of these conditions or any other faults exist, remove the product from service immediately!</p>
<p style="font-weight: bold; margin: 0;">WARNING ⚠ WARNING ⚠ WARNING ⚠ WARNING</p>	
<p style="font-size: 0.8em; margin: 0;">Make sure any connections are compatible with devices used. Only use self snap hooks and carabiners. Connections must be properly sized for this device. Do not install near any electrical equipment. Improper use of this product can result in serious injury or death!</p>	

DO NOT REMOVE THIS LABEL	<p style="font-size: 0.8em; margin: 0;">User must inspect prior to each use. Competent Person must complete formal inspection every 6 months. Competent Person to inspect and initial.</p> <p style="font-size: 0.8em; margin: 0;">Date of First Use: _____. Product life time is unlimited as long as it passes pre-use and Competent Person inspections.</p>	If this equipment fails inspection or is found to have deficiencies, remove from service.																																																																														
INSPECTION GRID	<table border="1" style="border-collapse: collapse; width: 100%;"> <thead> <tr> <th style="font-size: 0.8em;">Year</th> <th style="font-size: 0.8em;">J</th> <th style="font-size: 0.8em;">F</th> <th style="font-size: 0.8em;">M</th> <th style="font-size: 0.8em;">A</th> <th style="font-size: 0.8em;">M</th> <th style="font-size: 0.8em;">J</th> <th style="font-size: 0.8em;">J</th> <th style="font-size: 0.8em;">A</th> <th style="font-size: 0.8em;">S</th> <th style="font-size: 0.8em;">O</th> <th style="font-size: 0.8em;">N</th> <th style="font-size: 0.8em;">D</th> </tr> </thead> <tbody> <tr> <td style="font-size: 0.8em;">20__</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="font-size: 0.8em;">20__</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="font-size: 0.8em;">20__</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="font-size: 0.8em;">20__</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="font-size: 0.8em;">20__</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> </tbody> </table>	Year	J	F	M	A	M	J	J	A	S	O	N	D	20__													20__													20__													20__													20__													15800 Rev. 11/18
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Maintenance, Cleaning, and Storage

If anchor fails inspection in any way, immediately remove it from service, and contact FrontLine to inquire about its return or repair. Cleaning after use is important for maintaining the safety and longevity of this anchor. Remove all dirt, corrosives, and contaminants from the anchor before and after each use. NEVER clean anchors 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 all anchors 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 any 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 each anchor. The Competent Person must sign their initials in the box corresponding to the month and year the inspection took place.

INSPECTION GRID

INSPECT BEFORE EACH USE. A competent person must complete a formal inspection every 6 months and document below with initials. The life of this roofing device is unlimited as long as a competent person inspects and passes equipment as in good order every 6 months.

Date of First Use: _____

Year														
Month														
Date														
Initials														

If this equipment fails inspection or is found to have deficiencies, remove from service. Deficiencies include, but are not limited to deformation, corrosion, burrs, sharp edges, cracking, rust, pits, excessive heating, paint buildup, alteration, damaged parts and missing or unreadable labels.

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