

Sellstrom/RTC® D-Ring Plate

Installation, Operating & Maintenance Instructions

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Thank you for purchasing a Sellstrom/RTC (SM/RTC) D-Ring Plate. SM/RTC D-Ring Plates provide a convenient anchorage, while reducing the possibility of roll-out/burst-out with standard 3/4" snaphooks. These D-Ring Plates meet the 5,000-lb. strength requirements of ANSI and OSHA.



WARNINGS



To the Receiver, Contractor, Store Manager, Safety Director, Supervisor, Buyer, or anyone except the ultimate equipment users:

Under Penalty of Law

These instructions are not to be removed except by the user of this equipment. Current instructions must always be available to any potential user. Note: Because of continuous developments in the application and use of SM/RTC equipment and our desire to serve your best interests, these instructions are invalid 10 years after the effective date on these instructions. If these instructions are out of date, call SM/RTC Customer Service and request current instructions.

If you have difficulty or experience any problem with SM/RTC equipment or the instructions, call SM/RTC immediately and ask the Customer Service Department for assistance.

It is the responsibility of the user's management to review these instructions periodically, and to ensure compliance with every requirement to maintain the system's integrity. The equipment purchased is designed to be used as a part of a complete fall protection or emergency rescue system and is to be inspected and maintained regularly.

WARNINGS Continued...

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WARNINGS



To the Equipment User:
You must read and fully understand or have the following instructions explained to you before using this equipment. Failure to do so could result in serious or fatal injury.

Atencion: Si usted no puede leer el ingles o si usted no comprende estas instrucciones, favor de consultar su director de seguridad o su supervisor.

Attention: Si vous ne pouvez pas lire l'anglais ou si vous ne comprenez pas les instructions, consultez votre directeur de securite ou votre superviseur.

Achtung: Wenn Sie nicht Englisch lesen können und diese Anweisungen nicht verstehen, dann fragen Sie bitte Ihren Sicherheitsdirektor oder Ihren Aufselher.

Attenzione: Se non leggiere l'inglese o non capite queste istruzioni, per favore rivolgete Vi al Vostro Direttore, responsabile della "Sicurezza sul Lavoro" o al Vostro diretto superiore.

You assume complete liability if you fail to follow these instructions and are injured.

A "no" answer to any question on the Safety Checklist on the back page of these instructions, either before or during product use, is an unsafe use of this equipment. Use this equipment only as instructed.

Warning: All SM/RTC equipment should be a part of a complete SM/RTC fall protection or emergency rescue system. If the buyer or user chooses to disregard this warning, he is solely responsible for the safety of the entire system and all users.

Before replacing or adding components to a fall protection or emergency escape system, consult the original manufacturer. Federal OSHA further states that any unauthorized substitution or change to a system by the buyer should be fully evaluated or tested by a qualified person before the new system is put into use (see OSHA 1926.500).

All potential users of this equipment and user's management must read and understand all instructions fully; failure to do so could result in serious or fatal injury.

No fall arrest system can guarantee that you will not sustain injuries if a fall occurs. The most you can expect is that injuries will be substantially reduced. What you can be sure of is that improper use of this equipment will vastly increase your chances of serious injury or death because misuse builds false security. To achieve the maximum level of safety that this equipment is capable of providing, all instructions must be followed diligently. This means careful planning of your application and work method.

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Complete System Components

A complete fall protection system consists of the following components that are arranged to fit the specific work task and control the elevated fall hazard(s):

- **Anchorage**

An anchorage, as defined by OSHA, "shall be independent of any anchorage being used to support or suspend platforms and capable of supporting at least 5,000 pounds per employee attached, or shall be designed, installed and used as follows: as part of a complete personal fall arrest system which maintains a safety factor of at least two; and under the supervision of a qualified person".

For horizontal lifelines it is important to remember that the anchorages must be designed and installed according to the instructions provided using a safety factor of at least two. Anchorages for horizontal lifelines may require anchorage strengths greater than 5,000 lb. Refer to the specific instructions for each horizontal lifeline for anchorage requirements.

- **Body Support**

A body support is the component of a personal fall protection system that is worn on

or around the body. Full body harnesses must be used for all fall arrest systems.

- **Connecting Means**

A connecting means is the link between the body support and anchorage. It can be a shock-absorbing lanyard, rope grab, self-retracting lanyard or retrieval system.

Connecting means will vary depending on the application.

The user must also have a rescue plan and the means at hand to implement it in the event of a fall.

Note: For continuous protection, more than one system may be needed.

Warning



No other applications or methods of use are allowed without prior written approval.

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1.0 Approved Applications

The SM/RTC D-Ring Plates may be used to create anchorages for compatible fall protection equipment. The anchorage attachment structure must meet the requirements of section 3.0. The maximum working load is 310-lb. total weight. One D-Ring Plate must be used for each person.

Fall arrest equipment connected to the D-Ring Plate must have a maximum arresting force less than 1,800 lb.

Free fall distance must not exceed six feet for shock absorbing lanyards, or two feet for use with self-retracting lanyards.

2.0 Available Models

The SM/RTC D-Ring Plates are available in two configurations:

2.1 9450-DPLATE: D-Ring Plate with D-Ring. User must supply connection hardware.

2.2 9450-DPLATEKIT: D-Ring Plate with D-Ring assembly and connection hardware. Fits up to 1" thick support structure.

3.0 Anchorage Attachment Structure

3.1 Strength of Attachment Structure: All anchorages, including attachment structure, must be capable of supporting a minimum of 3,600 lb. when certification exists, or 5,000 lb. in the absence of certification. (See ANSI Z359.1 for definition of certification.) This requirement is consistent with OSHA requirements as follows: Anchorages used for attachment of personal fall arrest systems shall be independent of any anchorage being used to support or suspend platforms and capable of supporting at least 5,000 lb. per user attached, or be designed, installed and used as part of a complete PFAS which maintains a safety factor of at least two and is supervised by a qualified person.

3.2 Anchor Point Location: The D-Ring Plate must be located so that potential free fall cannot exceed 6 feet. Adequate clearance must be available below the user to safely arrest the fall. Refer to the instructions provided with the fall arrest equipment.

3.3 Anchorage Geometry

3.3.1 The D-Ring Plate should be oriented such that the locking snaphook will self correct under dynamic loading. The D-Ring Plate system should never be oriented such that dynamic loading could be placed on the snaphook gate.

Continued...

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3.0 Anchorage Attachment Structure

Continued

3.3.2 The entire base of the D-Ring Plate must be flush with the mounting surface.

3.3.4 Direction of Loading: The D-Ring Plate must be installed so that during a fall arrest, loads will only be applied in the directions shown. The installation of the D-Ring Plate must be such that no dynamic force can be applied to the snaphook gate.

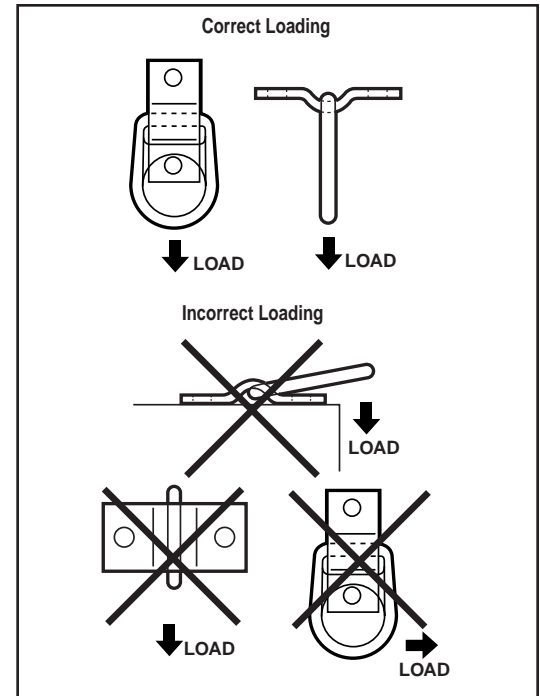


Illustration 1

4.0 Installation

4.1 The user must supply fasteners for model 9450-DPLATE that meet the specifications listed. Fasteners are provided with model 9450-DPLATEKIT that will accommodate up to a 1" support structure.

4.1.1 Fastener Specifications For W-Beams or other flat anchorage installations:

- Two grade 5, 1/2" diameter bolts of adequate length.
- Four SAE type flat washers, 1/2" nominal inside diameter.
- Two grade 5, 1/2" nylon insert locknuts.

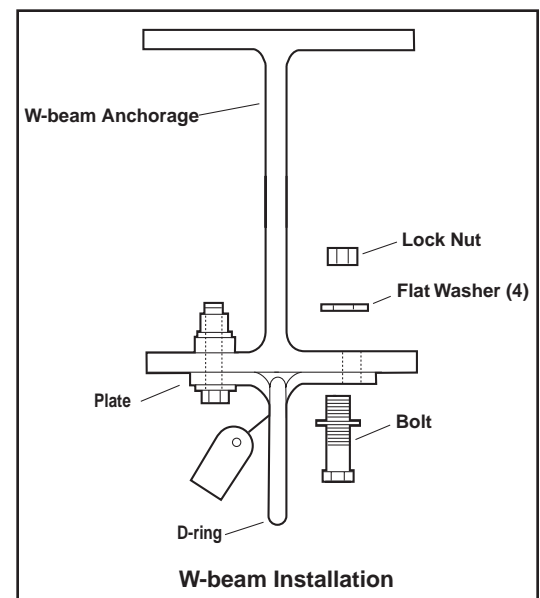


Illustration 2

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4.0 Installation

Continued

4.1.2 Fastener Specifications For S-Beams or other angled anchorage installations:

- Two grade 5, 1/2" diameter bolts of adequate length.
- Four SAE type flat washers, 1/2" nominal inside diameter.
- Two angle washers, 1/2" nominal inside diameter.
- Two grade 5, 1/2" nylon insert locknuts

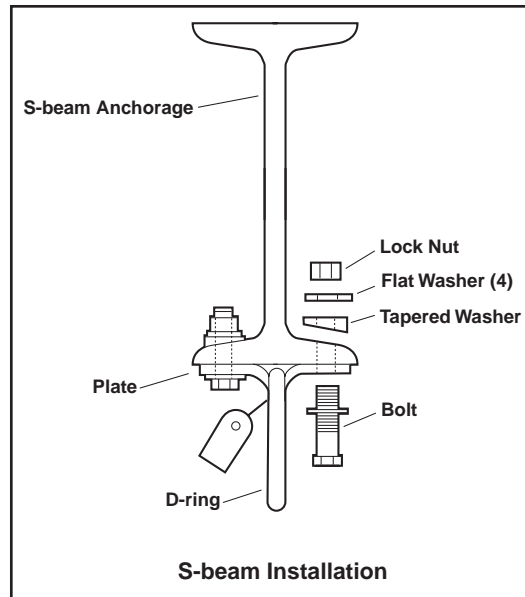


Illustration 3

4.2 Attachment of D-Ring Plate — Bolting Method

4.2.1 Using the D-Ring Plate as a template, drill two 17/32" holes through the selected anchorage.

4.2.2 Hold the D-Ring Plate with the D-Ring in position next to the beam, aligning the holes of the D-Ring Plate and the anchorage.

4.2.3 Connect the bolts through the washer, D-Ring Plate, anchorage, washer, and nut as shown in Illustration 2. For S-Beam applications an angle washer is inserted as shown in Illustration 3.

4.2.4 Tighten the nuts to 50–60-ft. lb. of torque. Do not re-use nut!

4.3 Attachment of D-Ring Plate — Welding Method

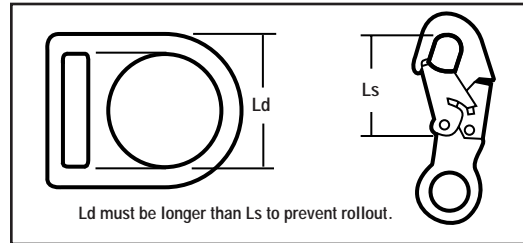
Welding the D-Ring Plate to the anchorage structure may be acceptable in some applications. Welding should be done by a certified professional welder in accordance with the latest codes and specifications of the American Welding Society. Base and filler material must be compatible with the anchorage plate and free of rust scale, paint, plating, etc. Do not weld the D-Ring. The D-Ring must be free to swivel. Protect finished welds from corrosion. Do not electroplate the D-Ring.

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5.0 Operating Instructions

5.1 Compatibility considerations for locking snaphooks: The distance from the inside edge of the snaphook to the pivot point of the snaphook gate must be greater than the width of the D-Ring. SM/RTC double locking snaphooks are recommended.



5.2 Inspect the D-Ring Plate, the D-Ring, the connection hardware and the anchorage as instructed in section 7.0 before each use.

5.3 Connect compatible fall protection equipment to the D-Ring.

5.4 If you fall, remove the equipment from service and immediately report what happened to your supervisor or the safety department.

5.5 Do not apply loads in the bending direction of the D-Ring.

5.6 If a fall has occurred, remove the D-Ring Plate from service and destroy.

6.0 Training

All training must be conducted under careful and competent supervision. Live hands-on training for all users is essential to help understand the capabilities and limitations of their personal protective equipment. Training also helps promote confidence and should

be conducted as an initial introduction as well as periodically for review and additional practice. Also, this instruction booklet should be stored where users can easily review it whenever necessary.

7.0 Inspection

Failure to remove equipment that has been damaged or where its condition is questionable could lead to serious or fatal injury. Call SM/RTC Customer Service for replacement information.

7.1 The user must visually inspect all equipment before each use. Additionally, a competent person other than the user must inspect the equipment at least every six months. If damage is found or you have questions about the equipment's condition, remove the item from service immediately. Tag the item for non-use, and replace it.

7.2 A detailed record of inspection dates and times should be maintained. A convenient inspection grid is provided on the product label.

7.3 D-Ring Plate and D-Ring inspection: Check for rough or sharp edges, corrosion, burrs, cracks, dents, distortion, or any other excessive wear or abrasion.

7.4 Inspect nut, bolt and washers. Check nut with torque wrench every six months. The correct torque value should be 50–60 ft.lb. Tighten if necessary.

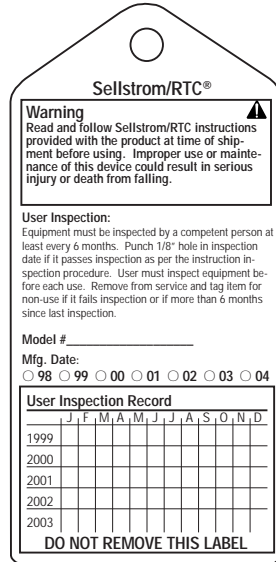
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7.0 Inspection Continued

7.5 Inspect labels: Labels on each D-Ring Plate should be secure and easy to read. Contact SM/RTC for replacement advice.



If you fall, remove the equipment from service and immediately report what happened to your supervisor or the safety department. A qualified person must check the entire system, including the anchorage point, to make sure it will provide the proper protection for the next person who might fall.

Warning



If a fall has occurred, remove the D-Ring Plate from service and destroy.



8.0 Maintenance

8.1 Personal protective equipment should be maintained regularly to help make sure that the equipment will operate properly when needed. Failure to maintain and store equipment carefully can result in poor operation that could lead to serious or fatal injury.

8.2 All equipment should be part of a periodic maintenance program, including detailed records. A minimum of every six months is suggested or more if the

equipment is heavily used. Never make any adjustments or repairs to or substitute any parts of an SM/RTC system; call SM/RTC Customer Service.

8.3 Cleaning: Wipe hooks clean with a cloth if necessary.

8.5 Equipment instructions also should be stored where all users can quickly find them when needed.

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9.0 Warnings

One person to a D-Ring Plate; no multiple person attachment of any kind with any fall arrest system.

Anyone who has a history of back or neck problems that could be aggravated or complicated by using SM/RTC equipment should not do so. Pregnant women or minors should not use this equipment. If there is any reason why you may not be physically able to safely absorb the forces subjected in the event of a fall arrest, consult your doctor. Always check for obstructions below your work area to make sure your potential fall

path is clear. Work directly under your anchorage/attachment point because swing falls can result in serious or fatal injury.

Never use harnesses, lanyards, webbing, snaphooks, or other fall protection equipment for any other use except personal fall protection as detailed in SM/RTC instructions.

Use extreme caution when working near an energized source. No material is completely dielectric. Maintain a safe working distance from electrical hazards.

10.0 Safety Checklist

Warning



All operators and users of SM/RTC equipment MUST be able to answer "yes" to all of the following questions before installing or using any SM/RTC equipment.

- ✓ Has all equipment been assembled and installed according to SM/RTC instructions?
- ✓ Has all equipment been inspected and maintained in accordance with SM/RTC instructions?
- ✓ Does the anchorage point meet SM/RTC and OSHA requirements?
- ✓ Is the equipment suited for the intended work task, and is it capable of providing continuous protection?

✓ Has each user received training — when hired or within the last 6 months — in the proper and safe operation and use of the equipment?

✓ Do all users fully understand the instructions and agree to use the equipment in a safe manner?

✓ Has SM/RTC been called if you or any user does not know how to comply with these instructions?

Warning



Do not use SM/RTC equipment if you answer "NO" to any of the questions above!

