

Permanent Roof Anchor User Instructions



General Safety Information

These *User Instructions* are not to be removed except by the user of this equipment. *User Instructions* must always be available to the user.

WARNING

Compliant fall protection and emergency rescue systems help prevent serious injury during fall arrest. Users must read and understand the *User Instructions* provided with the product and be properly trained by their employer prior to use per OSHA 29 CFR 1910.66 and 1926.503 or applicable local standards. **Misuse or failure to follow warnings and instructions may result in serious personal injury or death.** For proper use, see supervisor, *User Instructions*, or call Technical Service at 800-243-4630.

Purpose

The 3M Permanent Roof Anchor is designed to be used as part of a personal fall arrest system, to help limit the fall arrest forces in the event of a fall.

Use Instructions

1. Failure to follow all instructions and limitations on the use of Permanent Roof Anchors may result in serious personal injury or death.
2. Before using a personal fall arrest system, employees must be trained in accordance with the requirements of OSHA 29 CFR 1910.66 in the safe use of the system and its components.
3. Personal fall arrest systems, including Permanent Roof Anchors, must be inspected prior to each use for wear, damage, and other deterioration, and defective components must be immediately removed from service, in accordance with the requirements of OSHA 29 CFR 1910.66 and 1926.502.
4. The complete fall protection system must be planned (including all components, calculating fall clearance, and swing fall) before using.
5. Users must have a rescue plan, and the means at hand to implement it, that provides the prompt rescue of employees in the event of a fall, or assures that employees are able to rescue themselves.
6. Store Permanent Roof Anchors in a cool, dry, clean environment, out of direct sunlight, when not installed.
7. After a fall occurs, the Permanent Roof Anchors must be removed from service and destroyed immediately.

Use Limitations

1. Permanent Roof Anchors are designed for a single user (including clothing, tools, ect.) with a capacity up to 310 pounds (140 kg).
2. Permanent Roof Anchors are designed to be installed onto top chords that are a minimum 2"x4" (50x100 mm).
3. Framing must be capable of supporting static loads applied in all directions permitted by the fall arrest

system of at least: 3,600 lbs. (16.0 kN) with certification of a qualified person, or 5,000 lbs. (22.2 kN) without certification.

4. Permanent Roof Anchors are designed to be used in temperatures ranging from -40°F to +130°F (-40°C to +54°C).
5. Do not expose Permanent Roof Anchors to chemicals or harsh solutions which may have a harmful effect. Contact 3M Technical Service with any questions.
6. Caution must be taken when using Permanent Roof Anchors near moving machinery, electrical hazards, sharp edges, or abrasive surfaces, as contact may cause equipment failure, personal injury, or death.
7. Minors, pregnant women and anyone with a history of either back or neck problems should not use this equipment.
8. Do not use or install equipment without proper training from a "competent person" as defined by OSHA 29 CFR 1926.32(f).
9. Only 3M, or persons or entities authorized in writing by 3M, shall make repairs or alterations to the equipment.

Compatibility Limitations

All 3M Permanent Roof Anchors must only be coupled to compatible connectors. OSHA 29 CFR 1926.502 prohibits snaphooks from being engaged to certain objects unless two requirements are met: it must be a locking type snaphook, and it must be "designed for" making such a connection. "Designed for" means that the manufacturer of the snaphook specifically designed the snaphook to be used to connect to the equipment in question. The following connections must be avoided, because they can result in rollout* when a nonlocking snaphook is used:

- Direct connection of a snaphook to horizontal lifeline.
- Two (or more) snaphooks connected to one D-ring.
- Two snaphooks connected to each other.
- A snaphook connected back on its integral lanyard.
- A snaphook connected to a webbing loop or webbing lanyard.
- Improper dimensions of the D-ring, rebar, or other connection point in relation to the snaphook dimensions that would allow the snaphook keeper to be depressed by a turning motion of the snaphook.

***Rollout:** A process by which a snaphook or carabiner unintentionally disengages from another connector or object to which it is coupled. (ANSI Z359.1-2007)

Performance

3M Permanent Roof Anchors have a 3,600 lb tensile breaking strength, and are designed as part of a personal fall arrest system that limits the maximum arrest force to 1,800 lbs. or less, to maintain a safety factor of two as required by OSHA 29 CFR 1926.502(d)(15)(i).

Part Number 3M ID	Material	Length	Stem	Connection Size	Weight	Compliance Standards
4100 70071532355	14 ga Stainless Steel	11-1/4 in (286 mm)	6-1/2 in (165 mm)	1-1/8 in (28 mm)	1.5 lb (680 g)	OSHA 1910.66 OSHA 1926.502
4101 70071575040	14 ga Stainless Steel	15-1/4 in (387 mm)	6-1/2 in (165 mm)	1-1/8 in (28 mm)	1.8 lb (816 g)	OSHA 1910.66 OSHA 1926.502



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Installation

Install Permanent Roof Anchors over 2"x4" or 2"x6" top chords as shown in Fig. 1. Position the Permanent Roof Anchor at least 12" (305mm) down from the ridge. Install 6 teko nails (included) to prevent Permanent Roof Anchor from moving. Secure attachment bolt (included) under the top chord with lock nut (included) as shown in Fig. 2. Tighten nut until anchor legs are parallel and tight against the top chord sides. Do not over tighten.

Permanent Roof Anchors used on 2"x8", 2"x10" and 2"x12" top chords require drilling through the attachment bolt hole and top chord with a 5/16" (9 mm) drill bit as shown in Fig. 3. Secure attachment bolt (included) through the top chord with lock nut (included). Tighten nut until anchor legs are parallel and tight against the top chord sides. Do not over tighten.

Do not use the Permanent Roof Anchor unless attachment bolt is installed.

Sheathing

If sheathing is already in place, cut a 3"x3" (75 x 75mm) opening over the installation point. The shoulders of the Permanent Roof Anchor are designed rest on the top edge of the top chord as shown in Fig. 1. This will allow the attachment bolt to be installed under the bottom edge of the top chord leaving 1/8"-3/8" (2-6mm) clearance.

After the Permanent Roof Anchor is installed on the sheathing, place and seal the plastic holder. Replace the cover on the connecting point. (Fig.3)

Inspection

All Permanent Roof Anchors must be inspected prior to each use, and annually by an OSHA defined competent person other than the user.

If inspection reveals any defect, inadequate maintenance, or unsafe condition, remove from service and destroy.

If the Permanent Roof Anchors stem is bent, or there is visible damage to the connector attachment hole remove from service and destroy.

Do not attempt to straighten anchor stem that has been damaged or bent. Doing so will weaken the anchor and may result in anchor failure in the event it is subjected to the forces of arresting a fall.

Any equipment that has been subjected to the forces of arresting a fall must be removed from service and destroyed.

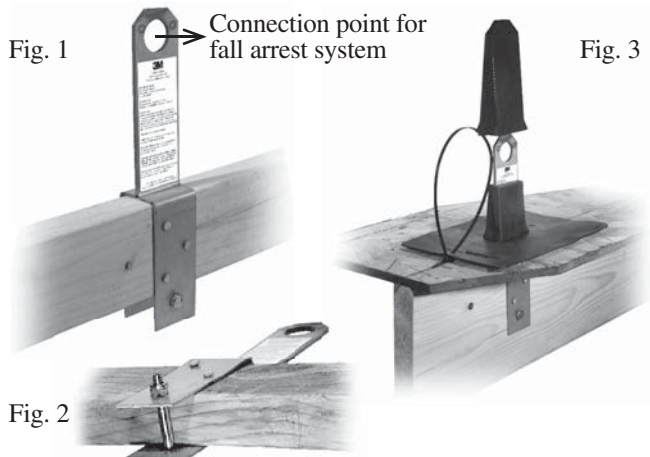
All Permanent Roof Anchors must be free of corrosion, chemical attack, alteration, excessive heating or wear.

All markings must be legible and attached to the product.

Note: Only manufacturer, or entities authorized in writing by the manufacturer, may make repairs to the product.

Cleaning and Maintenance

No cleaning or maintenance is required for this product.



Product Warranty, Limited Remedy, and Limitation of Liability

WARRANTY: THE FOLLOWING IS MADE IN LIEU OF ALL WARRANTIES OR CONDITIONS, EXPRESS OR IMPLIED, INCLUDING THE IMPLIED WARRANTIES OR CONDITIONS OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Equipment offered by 3M is warranted against factory defects in workmanship and materials for a period of one year from date of installation or first use by the original owner.

LIMITED REMEDY: Upon notice in writing, 3M will repair or replace all defective items at 3M's sole discretion. 3M reserves the right to require that the defective item be returned to its plant for inspection before determining the appropriate course of action. Warranty does not cover equipment damage resulting from wear, abuse, damage in transit, failure to maintain the product or other damage beyond the control of 3M. 3M shall be the sole judge of product condition and warranty options. This warranty applies only to original purchaser and is the only warranty applicable to this product. Please contact 3M technical service department at 800-243-4630 for assistance.

LIMITATION OF LIABILITY: IN NO EVENT WILL 3M BE LIABLE FOR ANY INDIRECT, INCIDENTAL, SPECIAL OR CONSEQUENTIAL DAMAGES INCLUDING, BUT NOT LIMITED TO LOSS OF PROFITS, IN ANY WAY RELATED TO THE PRODUCTS REGARDLESS OF THE LEGAL THEORY ASSERTED.

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