

Vertical Beam Clamp 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 Vertical Beam Clamp 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 Vertical Beam Clamp 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 Vertical Beam Clamp, 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 Vertical Beam Clamp in a cool, dry, clean environment, out of direct sunlight, when not in use.
7. After a fall occurs, the Vertical Beam Clamp must be removed from service and destroyed immediately.

Use Limitations

1. Vertical Beam Clamp must only be used on structures 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

2. person, or 5,000 lbs. (22.2 kN) without certification.
2. Vertical Beam Clamps are designed to be used in temperatures ranging from -40°F to +130°F (-40°C to +54°C).
3. Do not expose Vertical Beam Clamp to chemicals or harsh solutions which may have a harmful effect. Contact 3M Technical Service with any questions.
4. Caution must be taken when using Vertical Beam Clamp near moving machinery, electrical hazards, sharp edges, or abrasive surfaces, as contact may cause equipment failure, personal injury, or death.
5. Minors, pregnant women and anyone with a history of either back or neck problems should not use this equipment.
6. Do not use or install equipment without proper training from a “competent person” as defined by OSHA 29 CFR 1926.32(f).
7. Only 3M, or persons or entities authorized in writing by 3M, shall make repairs or alterations to the equipment.

Compatibility Limitations

3M Vertical Beam Clamps 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 Vertical Beam Clamps meet the 5,000 lb. tensile strength when statically tested in accordance with the requirements of the ANSI Z359.1-2007 standard.

Part Number 3M ID	Material	Fits Beam Flange	Length	Connection	Weight	Compliance Standards
4650-2V 78371002787	Zinc Plated Steel	4 in - 12 in (10.2 cm - 30.5 cm)	20-1/3 in (51.6 cm)	3/4 in (19 mm)	7.4 lb (3.4 kg)	ANSI Z359.1-07



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Installation

The Vertical Beam Clamp must be installed on structures capable of meeting the anchorage strength requirements of OSHA 29 CFR 1910.66 and 1926.502.

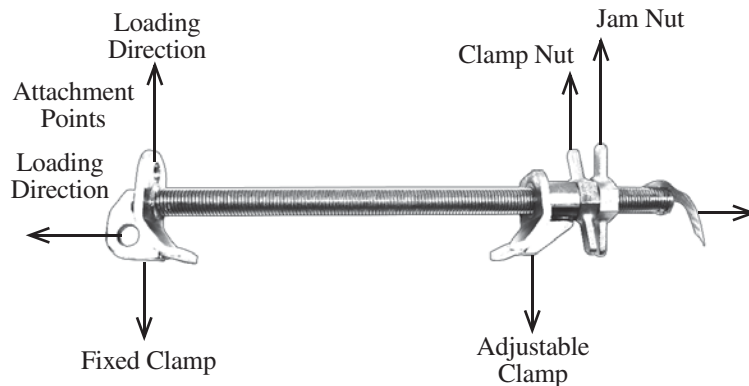
Adjust the two nuts out so that the fixed and adjustable clamps will fit on the beam.

Position the stationary clamp so that the fixed clamp engages over the beam flange. Push the adjustable clamp over the beam width so clamps are secure under the flange on each side.

Secure clamp nut against the adjustable clamp as tightly as possible by hand. Secure jam nut against the clamp nut hand tight ensuring the clamp nut does not turn.

Inspection

All Vertical Beam Clamps must be inspected prior to each use, and additionally by an OSHA defined competent person other than the user, annually.



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

All Vertical Beam Clamps must be free of corrosion, chemical attack, alteration, excessive heating or wear.

All markings must be legible and attached to the product.

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

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

Cleaning and Maintenance

Anchorage connector may be wiped down to remove grease, or dirt with a clean dry cloth.



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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www.3M.com/PPESafety

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IM-0034 (11-2011) 34-8708-7448-3

