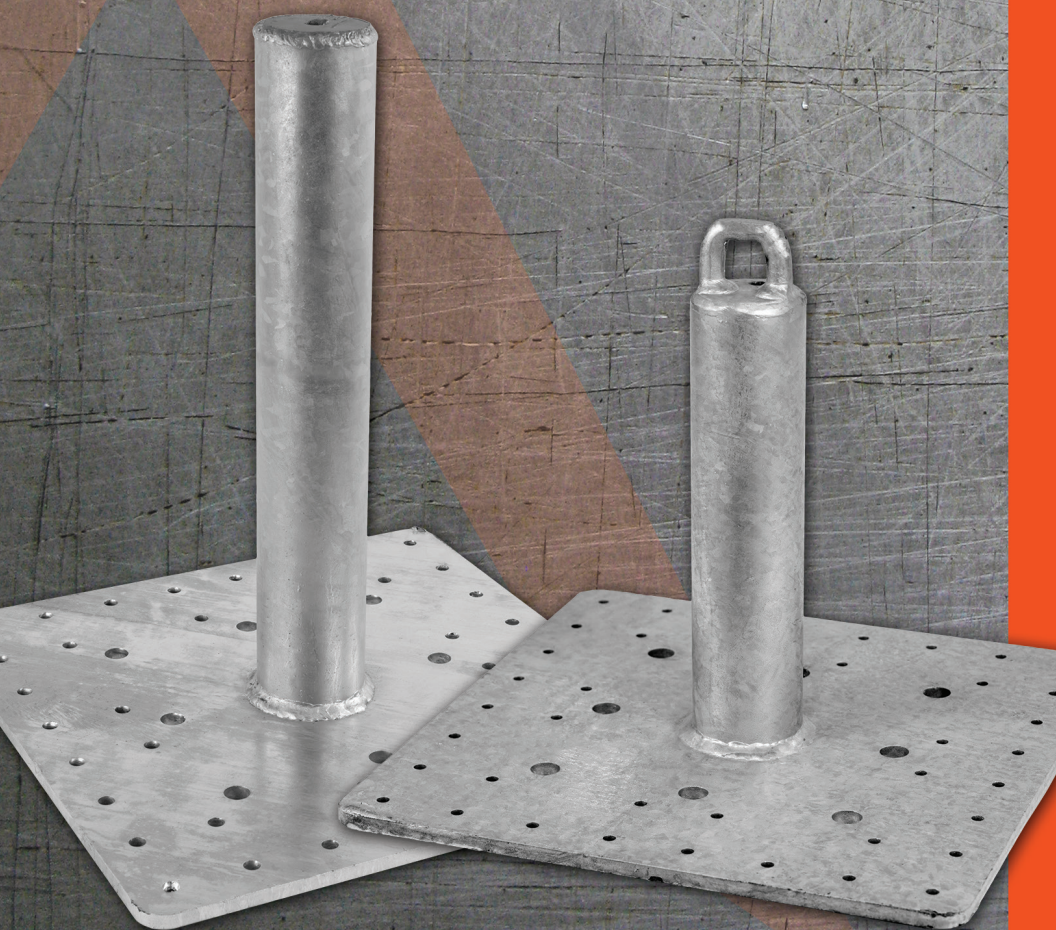
MALTA DYNAMICS

Roof Anchor

Instruction Manual



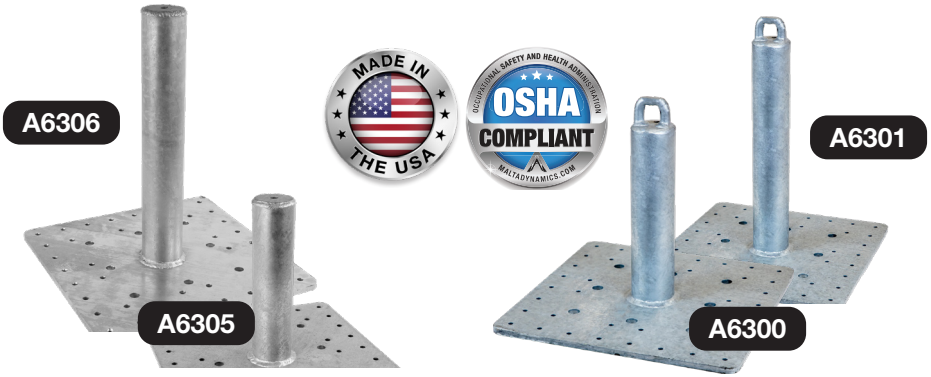
Roof Anchor
INSTRUCTION MANUAL

This product meets applicable OSHA® 1910,
OSHA® 1926:502 (d) (15) (1) (1) fall protection codes.
Designed in accordance with IWCA I-14.1, and ANSI Z359.1-2007
These instructions apply to the following model(s):

A6300 - Roof Anchor 12” Standard
A6301 - Roof Anchor 18” Standard
A6305 - Roof Anchor 12” Threaded
A6306 - Roof Anchor 18” Threaded

Manual Revision Code:
MD-RAUIM220131

A copy of this manual must be available to users at all times. Please visit www.MaltaDynamics.com for the latest user instruction manual revision available for this product offering.



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INTRODUCTION

Thank you for purchasing a Malta Dynamics Roof Anchor. 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 Roof Anchor, and all fall safety equipment used in combination with the Roof Anchor.

APPLICABLE SAFETY STANDARDS

When used according to instruction specifications, this product meets applicable OSHA® 1910, OSHA® 1926:502 (d) (15) (1) (1) fall protection codes. Designed in accordance with IWCA I-14.1, and ANSI 2359.1-2007. 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 (PFAS) and associated components.

Malta Dynamics Anchors do not comply with CalOSHA standards for buildings over 36' (or three stories), to comply with CalOSHA standards, anchors must be designed to meet window washing loads, must not show any sign of deformation under 2,500 lb. proof load, and no permanent deformation under a 5,000 lb. ultimate load. Refer to CalOSHA standards for details.

WORKER CLASSIFICATIONS

⚠ WARNING

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 all 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 all fall safety programs, including, but not limited to 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.

SAFETY INFORMATION

WARNING

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.

WARNING

This product contains a chemical known to the state of California to cause cancer, birth defects, or other reproductive harm.

Do not alter equipment. Do not misuse equipment.

Workplace conditions, including, but not limited to, flame, corrosive chemicals, electric 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.

The complete fall protection system must be planned (including all components, calculating fall clearance, and swing fall) before using.

All fall protection equipment must be purchased new and in 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.

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".

The user shall be equipped with a means of limiting the maximum dynamic forces exerted on the user during the arrest of a fall to a maximum of 8kN (1800-lbf).

Use of this product must be approved by an engineer or other qualified person to be compatible with any and all structural & operational characteristics of the selected installation location and system to be connected to this anchorage connector.

Forces applied to anchors must be calculated by Competent person.

Harnesses and connectors selected must be compliant with manufacturer's instructions, and must be compatible size and configuration.

A user must be of sound mind and body to properly and safely use this equipment in normal and emergency situations. Users must have a physician ensure they are clear of any medical conditions that may affect the proper and safe use of this equipment in normal and emergency situations.

Before using a personal fall arrest system, user must be trained in accordance with the requirements of OSHA 29 CFR 1910.66 in the safe use of the system and its components.

A written pre-planned rescue plan in case of a fall must be in place. The written rescue plan must be project-specific. The written rescue plan must allow 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 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.

Maintenance of equipment must be done according to manufacturer's instructions. Equipment instructions must be retained for reference.

Prior to each use, all equipment in a fall protection system must be inspected for any potential or existing deficiencies that may result in its failure or reduced functionality. IMMEDIATELY remove equipment from service if any deficiencies are found.

Equipment must be inspected by a Competent Person at least every six months. These instructions must be documented in this equipment instruction manual and on equipment inspection grid label.

Equipment must be inspected for defects, including, but not limited to, the absence of required labels or markings, improper form/fit/function, evidence of cracks, sharp edges, deformation, corrosion, excessive heating, alteration, excessive wear, fraying, knotting, abrasion, and absence of parts.

Equipment that fails inspection in any way must immediately be removed from use, or repaired by an entity approved by manufacturer.

Do not alter or modify this product in any way.

No on-site repair of equipment unless explicitly permitted by Malta Dynamics.

Equipment subjected to forces of fall arrest must immediately be removed from use.

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.

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.

The anchorage connector is designed to be used in temperatures ranging from -40ºF to +130ºF (-40°C to +54°C).

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.

Do not use/install equipment without proper training by a "competent person" as defined by OSHA 29 CFR 1926.32(f).

Allowable individual worker weight capacity range (including all clothing, tools, and equipment) is 130-310 lbs. if used in combination with equipment explicitly certified for such use and deemed proper by the competent person.

Do not remove the labeling from this product.

Additional requirements and limitations may apply depending on anchorage type and fastening option utilized for installation. All placements must be approved by an engineer or other qualified person.

MAINTENANCE, CLEANING, AND STORAGE

Repairs to Roof Anchors can only be made by a Malta Dynamics Fall Protection representative or an entity authorized by Malta Dynamics. Contact Malta Dynamics for all maintenance and repair needs at: 1-800-494-1840. If Roof Anchor fails inspection in any way, immediately remove it from service, contact Malta Dynamics to inquire about its return or repair.

Clean roof anchors as needed. Do not subject roof anchors to chemicals or adverse elements that could damage or corrode them.

INSPECTION

KEEP INSTRUCTIONS AVAILABLE FOR REFERENCE.

Record Date of First Use.

Prior to each use, inspect Roof Anchor for deficiencies, including, but not limited to, corrosion, deformation, pits, burrs, rough surfaces, sharp edges, cracking, rust, paint buildup, excessive heating, alteration, broken stitching, fraying, bird-caging, and missing or illegible labels. IMMEDIATELY remove Roof Anchor from service if defects or damage are found.

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 Substrate will support the application-specific minimum loads set forth in this instruction manual. Substrate must be stable.

At least every 6 months, a Competent Person other than user must inspect Roof Anchors. **Competent Person inspection must be recorded in inspection log in instruction manual and on equipment inspection grid label. The Competent person must sign their initials in box corresponding to the month and the year the inspection took place. If grid becomes full or illegible, contact Malta Dynamics for replacement label.**

During inspection, consider all applications and hazards Roof Anchors have been subjected to.

PRODUCT LABELS

The following labels are affixed to the product and must not be removed:

MALTA DYNAMICS

Roof Anchor Series

- ☐ A6300 Roof Anchor 12" Standard
- ☐ A6301 Roof Anchor 18" Standard
- ☐ A6305 Roof Anchor 12" Threaded
- ☐ A6306 Roof Anchor 18" Threaded

This product meets applicable OSHA® 1910, OSHA® 1926:502 (d) (15) (1) (1) fall protection codes. Designed in accordance with IWCA I-14.1, and ANSI Z359.1-2007

Date of Manufacture:

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

Materials: Galvanized steel or powder-coated steel

Only make compatible connections.

Refer to instructions for proper installation and connection methods. All PFAS equipment must be selected and deemed compatible with anchor by a Competent Person.

Capacity range: 130-310 lbs.

MADE IN THE USA

OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION OSHA COMPLIANT MALTADYNAMICS.COM

WARNING Refer to instructions for connection and installation specifications. Avoid contact with hazards, including but not limited to heat, chemicals, electricity, and sharp or abrasive edges and surfaces.

Inspection Grid

Date of First Use: _____

Inspection Date	Initials	Inspection Date	Initials	Inspection Date	Initials

User must inspect prior to EACH use. Competent Person must complete formal inspection every 6 months. Competent Person to inspect and initial.

Product lifetime is indefinite as long as equipment passes pre-use and Competent Person inspections.

If equipment fails inspection, IMMEDIATELY REMOVE FROM SERVICE.

Do Not Remove Label

800-494-1840 | MaltaDynamics.com
210 13th Street | Malta, OH 43758

PRODUCT SPECIFIC APPLICATIONS

WARNING

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

Personal Fall Arrest: Roof Anchors may be used to support a MAXIMUM of 1 Person in Fall arrest applications. Structure must withstand loads applied in all 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: Roof Anchors may be used in Restraint applications. Restraint systems prevent workers from reaching the leading edge of fall hazards. Always account for fully deployed length of lanyard/ SRL. Structure must withstand loads applied in all directions permitted by the system of at least 1,000 lbs. No vertical free fall is permitted. Restraint Systems may only be used on the surfaces with slopes up to 4/12 (vertical/horizontal). Applicable D-ring: Dorsal, Chest, Side, Shoulder.

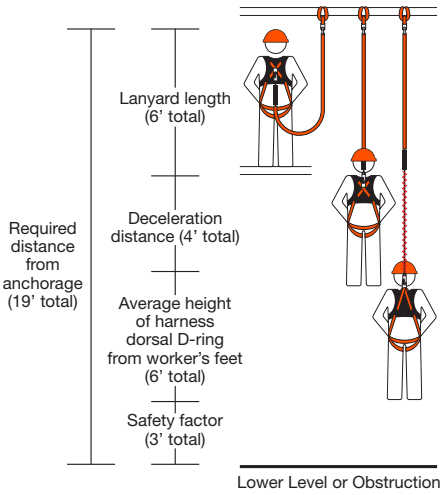
Confined Space/Rescue: Roof Anchors may be used in Confined Space/Rescue applications. Confined Space/ Rescue Systems are those capable of recovering a worker from a confined location or after they are exposed to a fall. Structure must withstand loads applied in the direction permitted by system of at least 3,000 lbs. No vertical free fall is permitted. Applicable D-rings: Dorsal, Chest, Shoulder.

For all applications: worker weight capacity range (including all clothing, tools, and equipment) is 130-310 lbs, or up to 420 lbs. if used in combination with equipment explicitly certified for such use. Maximum 1 connection per Roof Anchor.

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.**

FALL CLEARANCE CALCULATION

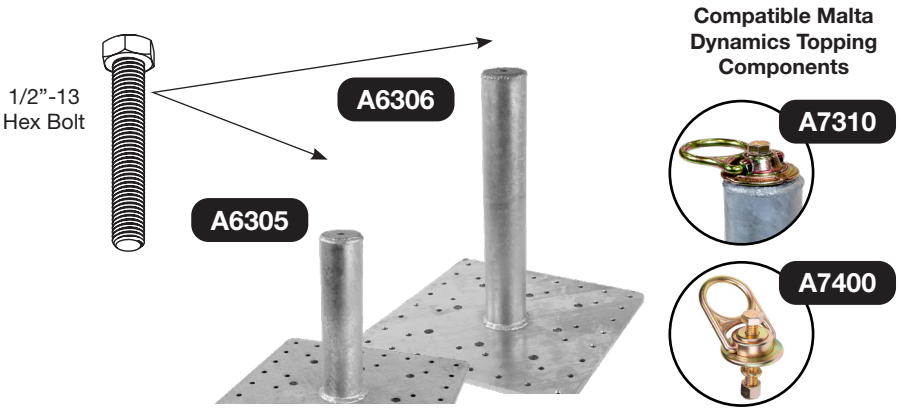


Swing Falls: Prior to installation or use, make considerations for eliminating or minimizing all swing fall hazards. Swing falls occur when the anchor is not directly above the location where a fall occurs. Always work as close to in line with the anchor point as possible. Swing falls significantly increase the likelihood of serious injury or death in the event of fall.

Compatibility: When making connections with Roof Anchors, eliminate all possibility of roll-out. Roll-out occurs when the interference between the hook and the attachment point causes the hook gate to unintentionally open and release. All connections must be selected and deemed compatible with Roof Anchors by a Competent person. All connector gates must be self-closing and self-locking, and withstand minimum loads of 3,600 lbs. See the following for examples of compatible/incompatible connections.

(A6300/A6301 shown above)

(A6305/A6306 shown above with Malta Dynamics topping component part # A7310)



When using Malta Dynamics topping component on our threaded post, user must use bolt supplied with the component and torque to 45 ft-lbs. (61 Nm).

NOTE: Ensure threads in post are clean before inserting bolt. Apply Loctite to bolt threads and torque to 45 ft-lbs. (61 Nm). Ensure that swivel can rotate 360° and D-ring can flip 180° side to side.

WARNING

When using threaded post (Part # A6305 or A6306) with another type of topping component not supplied or certified by Malta Dynamics, it is essential to the safety of the end user that the seller of that device include all instructions pertaining to the proper use, maintenance and inspection of the device in the language of the country in which the product is to be sold. Malta Dynamics is not responsible for any non-Malta Dynamics certified topping component that may be installed on 12” threaded post part # A6305 or 18” threaded post part # A6306. Seller must take full responsibly on integrity in combining Malta Dynamics 12” threaded post part # A6305 or 18” threaded post part # A6306 with any non-Malta Dynamics certified topping component. Combining 12” threaded post part # A6305 or 18” threaded post part # A6306 with any other topping that has not been certified by Malta Dynamics must be done by a Qualified person.

Do: Attach connector closed and locked to D-ring.

Do not: Attach two or more snap hooks or carabiners to each other.

Do not: Connect directly to webbing.

Do not: Connect two connectors to same D-ring.

Do not: Connect to applications that places load on gate.

Do not: Connect to incompatible or irregular application, which may increase risk of roll-out.

Do not: Connect directly to horizontal lifeline.

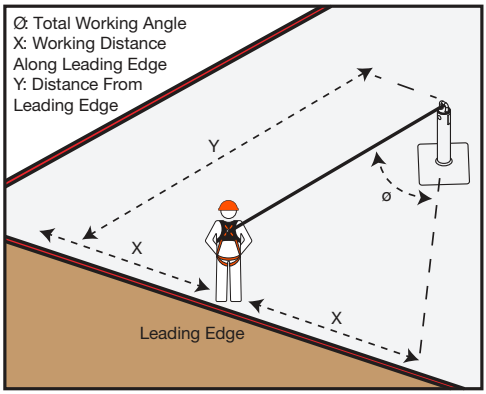
WARNING

All installations of Roof Anchors must be performed by a Competent or Qualified Person, or by a Malta Dynamics Fall Protection Certified Installer.

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.

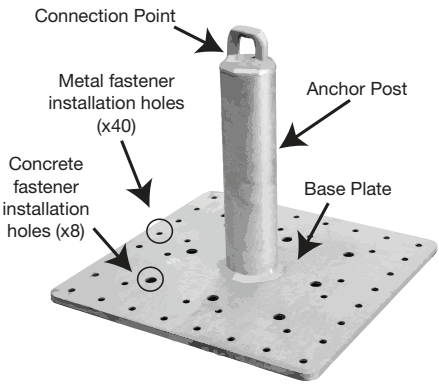
Anchor Distance from Leading Edge (Y)	Working Distance Along Roof Edge (Either Direction) (X)	Working Angle from Perpendicular (Ø)
6’	8’	53°
10’	9’-9”	45°
15’	11’-7”	38°
20’	13’-3”	33°
25’	14’-6”	30°
30’	16’	28°
35’	17’-2”	26°
40’	18’-3”	24°
45’	19’-4”	23°
50’	19’-10”	21°
55’	21’-4”	21°
60’	22’-3”	21°



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.

INSTALLATION AND USE

1. Ensure all PFAS equipment is selected and deemed compatible with applicable Roof Anchor by Competent Person.
2. Eliminate or minimize all risk of swing fall.
3. Ensure structure to which Roof Anchor is to be attached, and on which work is be performed, is free of all hazards, including, but not limited to, debris, rot, rust, sharp or abrasive edges and requirements specified by this instruction manual.



For all Roof Anchors, all applicable fastener holes must be used.

Window Washing: Anchors are required to be concrete embedded, bolted or field welded.

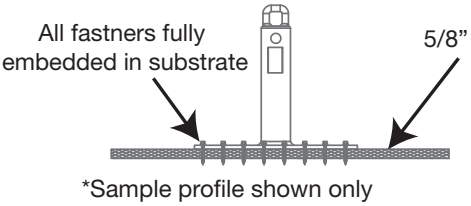
Substrate on which Roof Anchor is to be installed must withstand Minimum load of 5,000 lbs.

INSTALLATION - WOOD SUBSTRATE

MINIMUM substrate requirement: 5/8".

Fasteners: (40) #14 x 2½" Hex Head screws for wood decking or equivalent.

1. Place Anchor at selected installation location.
2. Install all fasteners until snug, and ensure anchor is fully secured to substrate.



*Sample profile shown only

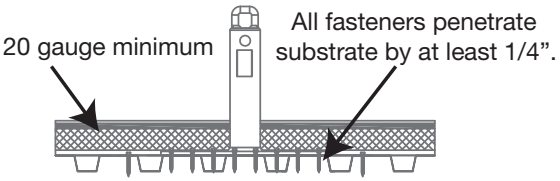
3. All fasteners must be fully embedded in wood decking.

INSTALLATION - METAL SUBSTRATE

MINIMUM substrate requirement: 20 gauge.

Fasteners: (40) #14 x 2½" Hex Head screws for metal decking or (40) Fab-Lok FAS-10-12 RW fastener or equivalent.

1. Place Roof Anchor at selected installation location.
2. Install all fasteners per the fastener manufacturer's instructions and ensure Roof Anchor is fully secured to substrate.



3. All fasteners must penetrate metal decking by at least 1/4".

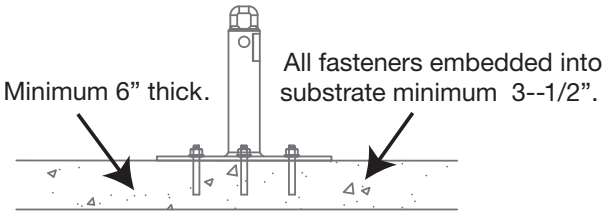
INSTALLATION - CONCRETE SUBSTRATE

Minimum substrate requirement: 2,000 psi, 6” thick.

Installation must be done a minimum of 8” from all edges. Hilti HIT-HY 200 epoxy or equivalent is required for the installation of Hilti Has-E Rods.

Fasteners must be (8) ½” Hilti Has E-Rods, with minimum 3-½” embedment or (8) ½” Wedge Anchors rated at 6,000 lbs.

1. Place Roof Anchor at selected installation location.
2. Install all fasteners per the fastener manufacturer’s instructions, and ensure Roof Anchor is fully secured to substrate.

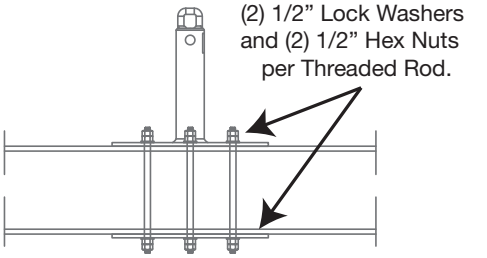


INSTALLATION - STRUCTURAL BEAMS (MIN 6” WIDTH)

NOTE: Backer Plate Required.

Fasteners must be (6) 1/2” Lock Washers, (6) 1/2” Hex Nuts, and (6) 1/2”, A307 threaded rods cut in the field to the proper length.

1. Place Roof Anchor at installation location.
2. Secure Backer Plate (A6307) to Roof Anchor with all required fasteners.
3. Tighten all fasteners per the fastener manufacturer’s instructions and ensure Roof Anchor is fully secured to substrate.
4. Deform threads on all fasteners to prevent tampering.



INSPECTION LOG

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Product lifetime is indefinite as long as equipment passes pre-use and Competent Person inspections.

If grid becomes full or illegible, contact Malta Dynamics for replacement label.

Inspection Date	Initials	Inspection Date	Initials	Inspection Date	Initials

If equipment fails inspection, IMMEDIATELY REMOVE FROM SERVICE.

LIMITED WARRANTY

Malta Dynamics, LLC warrants that the Roof Anchor shall be free from defects in material and workmanship that develop under normal use for a period of one year from the date of shipment. The foregoing shall be the exclusive remedy of the buyer and the exclusive liability of Malta Dynamics, LLC. Our warranty excludes normal replaceable wear items, i.e. gaskets, wear parts, seals, O-rings, belts, drive chains, clutches, etc. Any equipment, part or product which is furnished by Malta Dynamics, LLC but manufactured by another, bears only the warranty given by such other manufacturer (Malta Dynamics, LLC agrees to furnish free of charge a written description of problem or cause). Warranty is voided by product abuse, alterations, use of equipment in applications for which it was not intended, use of non-manufacturer parts, or failure to follow documented service instructions. The foregoing warranty is exclusive of all other warranties whether written or oral, expressed or implied. No warranty of merchantability or fitness for a particular purpose shall apply. The agents, dealers, and employees of Malta Dynamics, LLC are not authorized to make modifications to this warranty, or additional warranties binding on the Malta Dynamics, LLC. Therefore, additional statements, whether oral or written, do not constitute warranty and should not be relied upon.

Malta Dynamics, LLC's sole responsibility for any breach of the foregoing warranty provisions, with respect to any product or part not conforming to the Warranty or the description herein contained, is at its option:

(a) to repair, replace, or refund such product or parts upon the prepaid return thereof to location designated specifically by Malta Dynamics, LLC. Product returns not shipped prepaid will be refused.

(b) as an alternative to the foregoing modes of settlement that dealer may repair defective units with reimbursement for expenses. A written description of problem or cause must accompany all warranty claims.

Except as set forth here in above and without limitation of the above, there are no warranties or other affirmation which extend beyond the description of the products on the fact hereof, or as to operational efficiency, product reliability, or maintainability or compatibility with products furnished by others. In no event, whether as a result of breach of contract or warranty or alleged negligence, shall Malta Dynamics, LLC be liable for special or consequential damages including but not limited to: Loss of profits or revenue, loss of use of the product or any associated product, cost of capital, cost of substitute products, facilities or services or claims of customers. Malta Dynamics, LLC does not assume responsibility for any accident due to equipment modification or misuse.

No claim will be allowed for products lost or damaged in transit. Such claims should be filed with the carrier within fifteen days.

NOTES

MALTA DYNAMICS

800-494-1840
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405 Watertown Rd.
Waterford, OH 45786 USA