



MALTA
DYNAMICS
FALL PROTECTION & SAFETY

Adjustable Pitch
Roof Anchor
A6318 Instruction Manual

Adjustable Pitch Roof Anchor A6318 INSTRUCTION MANUAL

These instructions apply to the following model(s):
A6318 Adjustable Pitch Roof Anchor

Manual Revision Code:
20240724

A copy of this manual must be available to users at all times. Visit www.MaltaDynamics.com for the latest user instruction manual based upon date of manufacture.

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UNDER PENALTY OF LAW

This manual must be read and understood in its entirety, and used as part of a fall protection training program, as required by OSHA or any state/local regulatory agencies. This instruction manual is intended to meet industry standards required by ANSI Z359.18-2017 Type A and should be used as part of an Employee Fall Safety Training Program as required by OSHA. User must read and fully understand the limitations and proper use of the equipment. All users must be properly trained by their employer prior to use, per OSHA 29 CFR 1910.66, 29 CFR 1926.503, and applicable local standards.

NOTE: This *User Instruction Manual* is not to be removed except by the equipment user. Current *User Instruction Manuals* must always be available to the user. Read and understand these instructions before using equipment. Do not discard these instructions.

WARNING

Misuse or failure to follow warnings, instructions and limitations on the use of this equipment may result in serious personal injury or death. Maximum 1 attachment per connection type. For further instructions about proper use, refer to supervisor or contact Malta Dynamics at 1-800-494-1840.

MATERIALS AND CONSTRUCTION

Hardware: Plated alloy steel

PURPOSE

Malta Dynamics Adjustable Pitch Roof Anchor, A6318 is intended for use as part of a comprehensive personal fall arrest (PFAS) or personal fall restrain (PFR) system. Adjustable Pitch Roof Anchor is designed for use as a temporary anchorage connector for a PFAS or PFR system.

The A6318 must never be used to lift, hang, or support equipment. When used as part of a comprehensive PFAS, workers must also use a full body harness and shock absorbing lanyard/self-retracting lifeline that limits free fall to a maximum of six feet. When used as part of a comprehensive PFRS, workers must use a full body harness OR a work positioning belt and lanyard.



PERFORMANCE

A6318 Adjustable Pitch Roof Anchor has a minimum tensile breaking strength of 5,000 lbs. (22.2 kN) when statically tested.

Model/ Part #	Dimensions	Standard Regulation	Service Temperature	Minimum Breaking Strength (MBS)	Max Users Permitted	Working Load Limit	Fasteners
A6318	13.5" x 2.25"	ANSI Z359.18-2017, OSHA 1926 subpart M, OSHA 1910	-30°F - 130°F (-34°C - 54°C)	5,000 lbs. 22.2 (kN)	1	1000 lbs.	Qty 8, 16d nails

INSTRUCTIONS FOR USE



WARNING

Do not alter or intentionally misuse this equipment.

Anchor must be positioned to apply load in the long axis of the anchor bracket.

After removal of the roof anchor, roof surface may require repairs. It is the responsibility of the installer to make applicable repairs to the roof materials.

The Malta Dynamics Roof Anchor can be used on a maximum roof slope of 12/12 pitch.

USE REQUIREMENTS:

1. 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.
2. 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.
3. Use only with ANSI/OSHA compliant personal fall arrest or restraint systems. The anchorage must have the strength capable of supporting a static load, applied in the directions permitted by the system, of at least 5,000-lbf (22.2kN) in the absence of certification
4. 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).

5. 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.
6. The anchorage connector must be inspected prior to each use for wear, damage, and other deterioration. If defective components are found the anchorage connector must be immediately removed from service, in accordance with requirements of OSHA 29 CFR 1910.66 and 1926.502.
7. The complete fall protection system must be planned (including all components, calculating fall clearance, and swing fall) before using.
8. A rescue plan, and the means at hand to implement it, must be in place that provides the prompt rescue of users in the event of a fall, or assures that users are able to rescue themselves.

WARNINGS REGARDING THE ADJUSTABLE PITCH ROOF ANCHOR:

- Before use, all users must understand the instructions, operation, limitations, and consequences of improper use of device.
- Before use, all users must be properly trained in accordance with the requirements of OSHA 29 CFR 1910.66 and 1926.503 or applicable local standards in the safe use of the fall arrest system and its components.
- In the absence of certification, the anchorage must be capable of supporting a static load, applied in the directions permitted by the system, of at least 5,000-lbf (22.3 kN).
- A competent engineer or other qualified person must approve that the use of the roof anchor is compatible with all structural and operational characteristics of the selected installation location and system that it will relate to.
- Prior to each use, the must be inspected for wear, damage, and other deterioration. The roof anchor must immediately be removed from service (in accordance with OSHA 29 CFR 1910.66 and 1926.502) if it does not pass inspection.
- Before use, ensure that the complete fall protection system (including components, fall clearance, and swing fall) are planned and established correctly.
- Position the roof anchor in such a way to minimize the potential for falls, and the fall distance during use.
- Before use, establish a rescue plan that provides either: prompt rescue of users in the event of a fall, or assures users can rescue themselves. Also confirm that the means to implement said rescue plan are at hand and easily accessible.
- Swing Falls occur when the anchorage point is not directly above the point



of a fall. The force of striking an object in a swing may cause serious injury or death. Minimize potential for swing falls by working as close to the anchorage point as possible. Do not permit a swing fall if injury could occur. Swing falls significantly increase the amount of clearance required.

- ANSI Compliance and testing covers only the hardware and does not extend to the anchorage and substrate to which the anchorage is attached.

LIMITATIONS FOR USE

Warnings Regarding Use Limitations:

- Use caution when employing this equipment around machines, electrical hazards, chemical hazards and sharp edges or abrasive surfaces, as contact may cause equipment failure, personal injury, or death.
- All synthetic material must be protected from slag, hot sparks, open flames, or other heat sources. The use of heat resistant materials is recommended in these applications.
- Users must have a written rescue plan and the means to implement it. This plan must provide prompt employee rescue or assure that employees have the ability to rescue themselves in the event of a fall.
- Altering or misuse of this product could lead to injury or death.
- Use only with compatible components of subsystems. Substitutions or replacements made with non-approved components may jeopardize equipment compatibility and affect system safety and reliability.
- Remove any surface contamination such as concrete, stucco, roofing material, etc., that could accelerate cutting or abrading of attached components.
- This device must not be used outside its limitations, or for any purpose other than for which it is intended.
- User capacity: single user only, with weight up to 310 lbs (140 kg), including tools, clothing, etc.
- Do not expose the roof anchor to chemicals or harsh solutions which may negatively affect its performance.
- Do not alter or modify this product in any way.
- Exercise caution when using any component of a fall protection system near hazards such as: moving machinery, electricity, sharp edges, and abrasive surfaces. Failure to do so may result in equipment failure, personal injury or death.
- All individuals must be trained by a “competent person” (as defined by OSHA 29 CFR 1926.32(f)) before using this equipment
- Do not remove product labels.
- Depending on anchorage type / type of fastening used for installation,

there may be additional requirements or limitations. Before installation, all placements must be approved by an engineer or other qualified person.

- The anchorage connector should only be used for personal fall protection (not lifting).
- Only couple the anchorage connector to compatible connectors. Per OSHA 29 CFR 1926.502, snaphooks are prohibited from engaging with objects unless: it is a locking type of snap hook, and it is “designed for” making such a connection. “Designed for” indicates that the manufacturer of the snaphook specifically designed it to be used to connect to the equipment listed.

CONNECTOR COMPATIBILITY LIMITATIONS

Malta Dynamics equipment must be coupled only to compatible connectors that are suitable to your application. Ensure all connections are compatible in size, shape and strength. Ensure all connectors are fully closed and locked. OSHA 29 CFR 1926.502 prohibits the use of snap hooks to engage to objects unless the following requirements are met:

- Snap hook must be an ANSI-style locking model.
- Snap hook must be explicitly designed for such a connection, meaning that the manufacturer of the snap hook specifically it to connect to the equipment in question.

Use of a non-locking snap hook can result in rollout (a process by which a snap hook or carabiner unintentionally disengages from another connector or the object to which it is coupled (ANSI Z359.0- 2012). Malta Dynamics connectors (snap hooks and carabiners) are designed to be used only as specified in each product’s user’s instructions.

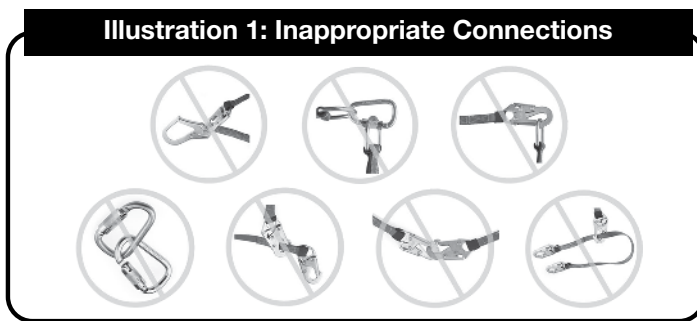
Avoid the following types of connections:

- Two or more snap hooks or carabiners attached to one D-Ring.
- A snap hook connected to its integral lanyard.
- A snap hook connected to a horizontal lifeline.
- Connection in a manner that results in a load on the gate. NOTE: *Large throat opening snap hooks should not be connected to standard size D-Rings or similar objects. This could result in a load on the gate if the hook or D-Ring twists or rotates. Large throat snap hooks are designed for use on structural elements such as rebar or cross members that are not shaped to capture the gate of the hook.*



- False engagement connections, where protruding features of the snap hook or carabiner may catch on the anchor and seem fully engaged to the anchor point. Always confirm engagement.
- Connection to snap hooks or carabiners.
- Direct connection to webbing lanyard, webbing loop, rope lanyard or tie-back (unless the manufacturer's instructions for both the lanyard and connector specifically allow such a connection).
- A snap hook connected to a D-Ring, Rebar, or other connection point with improper dimensions/configurations could cause the snap hook keeper to become depressed by the turning motion of the snap hook; the snap hook or carabiner may not fully close and lock or roll-out may occur.

Illustration 1 depicts examples of inappropriate connections:



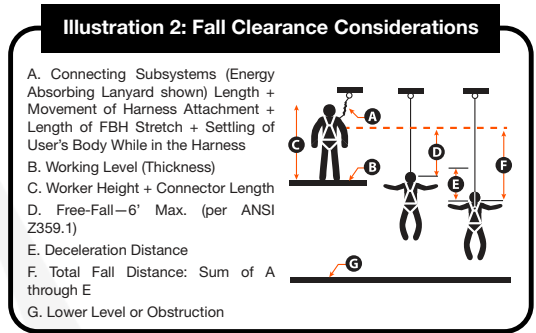
Before Each Use:

- Inspect the anchor for any damage or soiling (dirt, oil, paint, etc.)
- Ensure self-locking snap hooks & carabiners work properly. Inspect rope or webbing for wear, cuts, burns, frayed edges, or other damage.
- **Anchorage:** Select a rigid anchorage point capable of supporting required loads. Select appropriate anchorage point that will reduce possible free fall and swing fall hazards and avoid striking an object during a fall. Anchorage should be level (horizontal) in order to prevent the connector from sliding on an incline when in use, which could cause serious injury to the user.
- **Fall Clearance:** Should a fall occur, there must be sufficient clearance in the fall area to arrest the fall before striking the ground or other object.
- **Free Fall:** Personal fall arrest systems must be rigged in such a way that the free fall does not exceed 6 ft. Avoid working above the anchorage level to avoid an increase in fall distance.
- **Fall Arrest Forces:** The assembled Personal Fall Arrest system must limit maximum arrest forces to 1800 pounds (8 kN) or less. Deceleration distance shall not be allowed to exceed 48 in.

CLEARANCE FACTORS

Clearance Required is Dependent On the Following Factors:

- Elevation of Anchorage
- Connecting Subsystem Length
- Deceleration Distance
- Free-Fall Distance
- Worker Height
- D-Ring/Connector Length
- Movement of Harness Attachment Element
- Length of Full Body Harness (FBH) Stretch
- Working Level

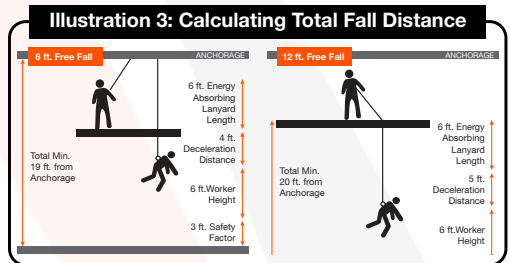


See Illustration 2.

If there is a risk of fall or if the only anchorage point is below the attachment points on the harness, it is essential to use a lanyard provided with an energy absorber. Before using a shock absorbing lanyard, ensure that there is sufficient fall clearance below the user to prevent any collision with the structure or the ground.

Calculating Total Fall Distances:

Total Fall Clearance below worker is calculated from Anchorage Connection. Free Fall Distance + Working Level + Energy Absorber + Deceleration Distance + Worker Height + Connector Length + Safety Factor. Ensure that total fall distance is clear of obstructions and equipment. Avoid potential contact with a lower level. **See Illustration 3.**

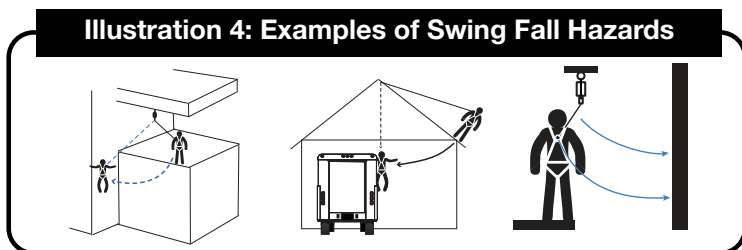


- Thoroughly evaluate and plan all elements of fall protection system(s) before using this equipment. Make sure that your Personal Fall Arrest System is appropriate for your needs and facility. Calculate fall clearance and swing fall clearance. The amount of clearance required is dependent on the type of



connecting subsystem, the anchorage location, and the amount of stretch in the lifeline. When calculating distance, be sure to consider:

- Deceleration Distance
 - Movement of harness attachment element (D-Ring, Harness Stretch)
 - Free Fall Distance
 - Height of the Worker (how tall is the worker?)
 - Elevation of Anchorage Connector
 - Connecting Subsystems Length
- **Swing Falls** occur when the anchorage point is not directly above the point of a fall. The force of striking an object in a swing may cause serious injury or death. Minimize potential for swing falls by working as close to the anchorage point as possible. Do not permit a swing fall if injury could occur. Swing falls significantly increase the amount of clearance required. **See Illustration 4.**



WARNING

- Avoid working where your lanyard, lifeline or other system components will be in contact with, or abrade against, unprotected sharp edges.
- A Competent Person must ensure the compatibility of all connections and that of the system.
- Do not use the system if any component in the system does not operate properly.

INSTALLATION

Attachment:

Center on the ridge of roof framing assembly. Position the anchor on the roof such that the holes along the center of the legs are centered directly over the center of the roof framing member. The roof anchor must be positioned over top of previously secured roof sheathing (do not attach directly to rafter or truss). Push down the legs of the anchor to meet desired pitch.

Nails:

The 4 holes on each leg must be used. The holes must be centered on the framing section. Total of 8 nails must be used. Minimum ply wood thickness = 1/2" nominal. Nail size to be used 16d 3 1/2" long.

Figure 1: Roof Anchor Installation Details

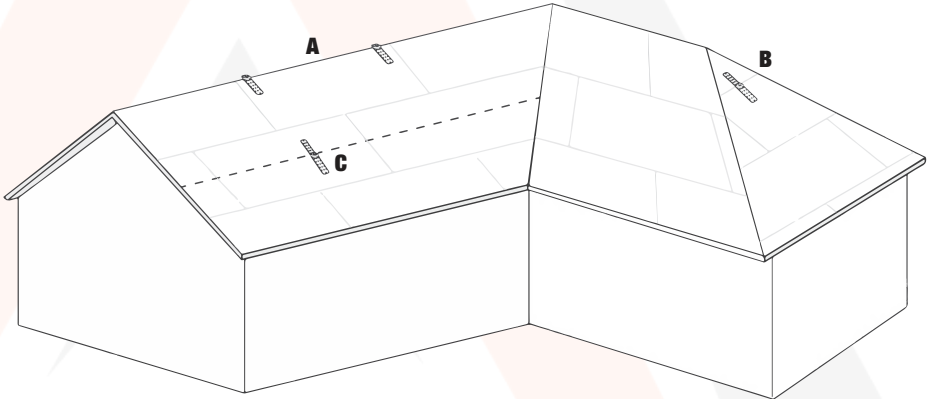
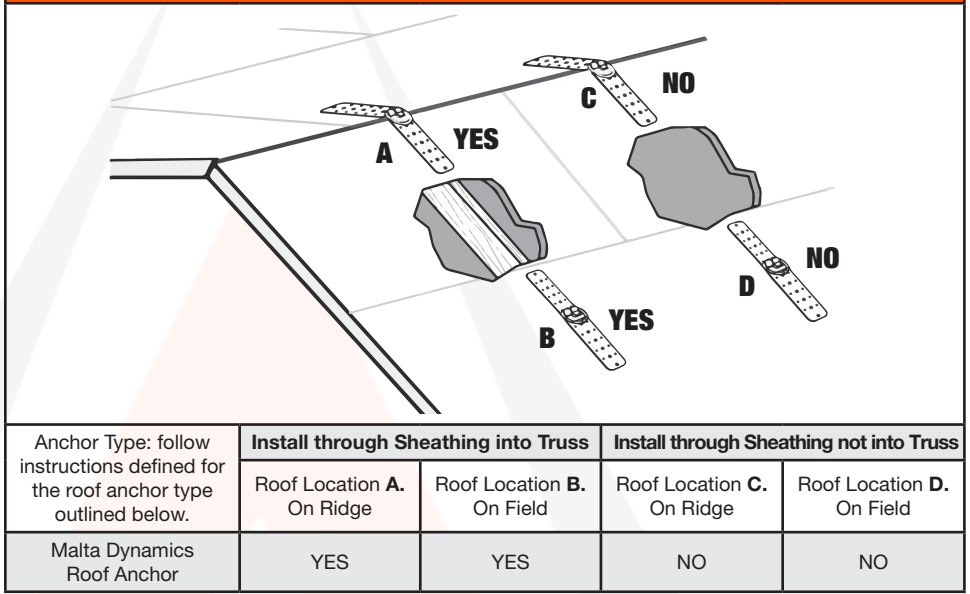


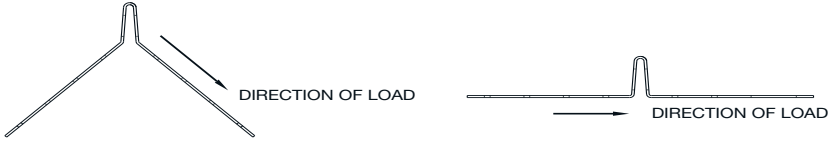
Figure 2: Typical Roof Site Plan for Roof Anchors

A	Roof Ridge	No more than 8' of spacing between roof anchors installed on Roof Ridges
B	Hip Face	At least one (1) roof anchor on each Hip Face
C	Roof Edge	No less than 6' from an exposed Roof Edge

*Anchors in image are used to show installation details and not specific design of anchor.



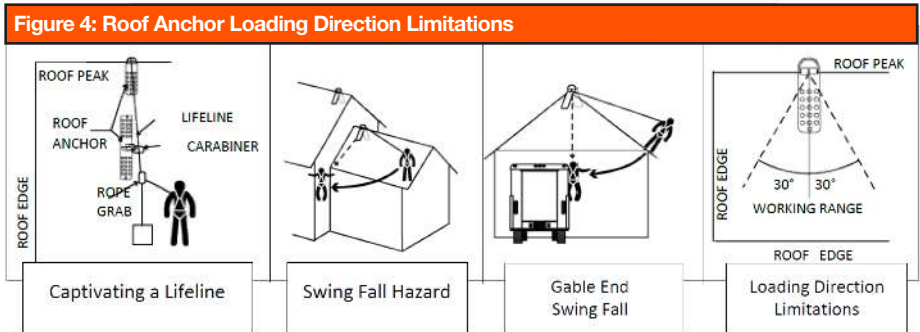
When multiple roof anchors are installed, the strength (static load) above must be met at each roof anchor's installation point independently. (E.g. If two roof anchors are installed onto a roof structure, each of the two anchor location must be independently capable of supporting 5,000 lbs.(22.2 kN) or 3,600 lbs. (16.0 kN) with certification.)



The Anchor can be fixed so that the load impact is in the directions shown in the figure.

All fasteners must be installed without splitting the timber or protruding through side members. Edge distance, end distances and spacing must be sufficient to prevent splitting of the wood, and must conform to design requirements under the current edition of Section 11.1.5 National Design Standard (NDS), Chapter 23 of The International Building Code (IBC) and all other applicable codes. Nails must meet the requirements of ASTM F1667.

If roof anchor is not installed properly, it will not hold the rated loads and serious injury or death could occur.



TRAINING

Employers are responsible for providing training to any employee who may be exposed to fall hazards in order to enable the employee to recognize and reduce fall hazards. Training must be conducted by a Competent or Qualified Person as defined by OSHA 29 CFR1926.32(f). Trainer and trainees must not be exposed to fall hazards during the training course.

INSPECTION

The authorized person, authorized rescuer or others using this equipment must comply with these instructions. It is recommended the program administrator, or other similarly recognized person, retain the manufacturer's user instructions and require them to be read, understood and readily available to all users.

Authorized person or rescuer shall inspect equipment before each use. Additionally, a competent or qualified person other than the user shall conduct inspections annually.

The program administrator shall set inspection criteria for the equipment. Such criteria shall equal or exceed the most restrictive of the criteria established by the user instructions. Keep inspection criteria current in relationship to changing patterns or conditions of use.

The program administrator shall maintain documentation of equipment inspections. This documentation shall include, at a minimum, the identity of the equipment, inspection date, name of the competent or qualified person conducting the inspection and the results of that inspection.

When an inspection reveals:

- defects in equipment; or
- damage to equipment; or
- inadequate maintenance of equipment; or
- activated stress indicators; or
- activated warning systems or devices; or
- deformation exceeding the manufacturer's stated limits;

Permanently remove equipment from service.

In addition to the inspection requirements set forth in the user instructions, inspect equipment at each inspection level described for:

- absence or illegibility of markings or tags;
- absence of any elements affecting the equipment form, fit or function;
- evidence of defects in or damage to hardware elements including cracks, sharp edges, deformation, corrosion, chemical attack, excessive heating, alteration and excessive wear;
- alteration, absence of parts, or evidence of defects in, damage to or improper function of mechanical devices and connectors;
- any other condition that calls to question the suitability of the equipment for its intended purpose.



If the equipment has arrested a fall or been damaged, remove the equipment from service. Additionally, clearly mark or tag the equipment not for use and either disposed of or serviced in accordance with the manufacturer's recommendation.

If inspection reveals any defect, inadequate maintenance, or unsafe condition, remove anchor from service immediately.

Note: Equipment must not be altered in any way, including attempted repair. Only manufacturer, or entities authorized in writing by the manufacturer, may make repairs to this product.

- Equipment must be free of corrosion, chemical attack, alteration, excessive heat or extreme wear.
- All markings must be legible and attached to the equipment.

FREQUENCY

- All equipment must be visually inspected prior to each use according to the manufacturer's instructions included at time of shipment. Inspections must be performed by a Competent Person other than the user (as defined by OSHA) a minimum of once per year (annually).
- Record the results of each formal inspection in your inspection log.
- **NOTE: Per Cal/OSHA PFAS must be inspected by a competent person at least once a year, in accordance with the manufacturer's recommendations, with inspection dates documented.**

CLEANING, MAINTENANCE, AND STORAGE

Cleaning

Wipe off all surface dirt. Store in clean, dry space, away from heat and areas where chemical vapors may exist. Avoid storing in direct light to prevent UV degradation.

Maintenance

Do not attempt to disassemble or repair. Only Malta Dynamics or entities authorized in writing by Malta Dynamics shall make repairs, authorize maintenance, or make alterations to the equipment.

Tag equipment which is in need of or scheduled for maintenance not for use until maintenance is performed.

Storage

Store equipment in a manner as to preclude damage from environmental factors such as heat, light, excessive moisture, oil, chemicals and their vapors or other degrading elements.

SAFETY INFO

Anchorage Strength:

In accordance with ANSI Z359.18-2017, anchorage selected for **Personal Fall Arrest Systems must meet all** anchorage strength requirements.


- **Personal Fall Arrest:** Anchorages used for PFAS must be capable of sustaining static loads in the direction permitted by the PFAS of at least: 3,600 lbs. with certification of a qualified person; or 5,000 lbs. without certification. When more than one PFAS is attached to an anchorage, the strengths stated above must be met independently at and for each anchorage location.
- **Work Positioning:** The structure to which the work positioning system is attached must sustain static loads applied in the directions permitted by the work positioning system of at least 3,000 lbs., or twice the potential impact load, whichever is greater. See OSHA 1926.502. When more than one work positioning system is attached to an anchorage, the strengths stated above must be multiplied by the number of work positioning systems attached to the anchorage.
- **Restraint:** Anchorages selected for rescue systems must be capable of sustaining static loads of at least: 1,100 lbs. When more than one restraint and travel restraint system is attached to an anchorage, the strengths stated above must be multiplied by the number of work positioning systems attached to the anchorage.
- **Rescue:** The structure to which rescue system is attached must sustain static loads applied in the directions permitted by the work positioning system of at least 3,000 lbs., or five times the potential impact load, whichever is greater. See OSHA 1926.502. When more than one work positioning system is attached to an anchorage, the strengths stated above must be multiplied by the number of work positioning systems attached to the anchorage.


Fall Arrest	Non-Certified Anchorage	5,000 lbs. (22.2kN)	Multiple Systems: When more than one of the defined systems is attached to an anchorage, the strength defined shall be multiplied by the number of systems attached to the anchorage.
	Certified Anchorage	3,600 lbs. (16.1kN)	
Restraint	Non-Certified Anchorage	1,100 lbs. (22.2kN)	
	Certified Anchorage	≥ 2 Times the Maximum Potential Impact Load	
Work Positioning	Non-Certified Anchorage	3,000 lbs. (22.2kN)	Certified Anchorage: An anchorage for Personal Fall Arrest, Work Positioning, Restraint or Rescue systems that a qualified person certified to be capable of supporting the potential fall or that meets the criteria for a certified anchorage point, as prescribed by relevant ANSI and OSHA standards.
	Certified Anchorage	≥ 2 Times the Maximum Potential Impact Load	
Rescue	Non-Certified Anchorage	3,000 lbs. (22.2kN)	
	Certified Anchorage	≥ 5 Times the Maximum Potential Impact Load	



PRODUCT LABELS

The following labeling is affixed to product and must not be removed:

 Read the user Manual



Adjustable Pitch Anchor **Part #: A6318**

Serial No.: XXXXXX
 Batch No.: XXXXXX
 Date of Mfg.: XXXXXX

Complies with all applicable ANSI Z359.18-2017 Type A, OSHA 1910 and 1926 Subpart M standards.
 Material: Alloy Steel
 Minimum Breaking Strength (MBS): 5000 lbs.
 Service Temperature: -30°F to 130°F (-34°C to 54°C)

⚠ WARNING

Before every use, user must read the instruction manual received with the product at the time of shipment. All instructions regarding proper use, maintenance and inspection must be followed. Any alteration, misuse or failure to follow instructions, may result in serious injury or death.

ANY ALTERATION, ABUSE OR MISUSE OF THIS PRODUCT VOIDS THE WARRANTY.

210 13th Street
 Malta, OH 43748
 800-494-1840
 MaltaDynamics.com

Do Not Remove Label
Made In India

Must install into roof truss or supportbeam. All (8) fastener holes must be used. Fasteners must be 16d galvanized, duplex nails or better.

Inspection:

Inspect the product before each use. Every 12 months, inspection of the product must be done by a Competent Person in accordance with the manual. Do not use if found in defective condition or fails inspection. Should not be repaired by the user.

Warning: Do not load from sides (see manual for details).

Use: Refer to the user instruction manual for details on making connections. Keep the lifeline safe from abrasive surfaces and sharp edges during use. Always use caution when using the equipment near hazardous, thermal, electrical or chemical sources. Refer to the user manual for additional information.

Date of First Use:

INSPECTION CHART

MO	J	F	M	A	M	J	J	A	S	O	N	D
12												
20												
20												
20												
20												

Do Not Remove Label
Made In India

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 Malta Dynamics 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, Malta Dynamics will repair or replace all defective items at Malta Dynamics's sole discretion. Malta Dynamics 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 Malta Dynamics. Malta Dynamics 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 Malta Dynamics customer service department at 800-494-1840 for assistance. LIMITATION OF LIABILITY: IN NO EVENT WILL MALTA DYNAMICS 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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