K-STRONG®
UNRIVALED SAFETY.

KAPTURE™ ELEMENT
HOTWORX

USER INSTRUCTION MANUAL

FLANIL FLAME RESISTANT FULL BODY HARNESS

THESE INSTRUCTIONS APPLY TO THE FOLLOWING MODELS:

AFH300701, AFH300702

CE 0598
EN 361:2002,
EN 358:2018

Please read and understand the manufacturer's instructions for each component or part of the complete system. Manufacturer's instructions must be followed for proper use, care, and maintenance of this product. These instructions must be retained and be kept available for the user's reference at all times. Alterations or misuse of this product, or failure to follow instructions, may result in serious injury or death.

Note: The user is advised to keep this user instructions document for the life of the product.

1. **IMPORTANT:** This manual must be read and understood in its entirety and used as part of fall protection training program as required by safety policy or any state regularity agency. These instructions are intended to meet the manufacturer instructions as required by EN 361:2002 & EN 358:2018. The user must fully understand the proper equipment use and limitations.
   The Kapture Element Hotworx Full Body Harnesses have been specially designed for workers engaged in Welding and Hot work at height. The Webbing of Kapture Element Hotworx Full Body Harnesses and Lanyards is made up of a special fibre which is flame resistant and can withstand temperatures of upto 700ºF/ 371ºC without any damage.

2. **DESCRIPTION:** Kapture Element Hotworx Full body harnesses are Personal Protective Equipment (PPE) against falls from a height according to the European PPE Regulation (EU) 2016/425 and are in conformity to the Norm EN 361. The full body harness is a basic component of the fall arrest system in conformity to the Norm EN 363.
   This product is classed as a Personal Protective Equipment (PPE) by the European PPE Regulation (EU) 2016/425 and has been shown to comply with this Regulation through the Harmonized European Standard EN 361:2002 &/or EN 358:2018 and ISO 15025:2002 & ISO 9150:1988.

3. **APPLICATION:** The use of the full body harness with a fall arrest subsystem must be compatible with the operating instructions for each component of the system and the Norms: EN 353-1, EN 353-2, EN 355, EN 360 and EN 362.

EN 361:2002 Test [For AFH300701, AFH300702]	Result/Comment
Clause 4.1 Design and Ergonomics	Achieves required performance requirement
Clause 4.2 Material & Construction	Achieves required performance requirement
Clause 4.3 Static strength	Achieves required performance requirement
Clause 4.4 Dynamic Performance	Achieves required performance requirement

EN 358:2018 Test [AFH300702]	Result/Comment
Clause 4.1 Design, Construction and Ergonomics	Achieves required performance requirement
Clause 4.2 Materials	Achieves required performance requirement
Clause 4.4 Static Strength	Achieves required performance requirement
Clause 4.5 Dynamic Strength	Achieves required performance requirement

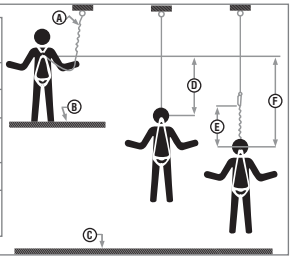
EN ISO 15025:2002
EN ISO 9150:1988 } The webbing of this product has passed strength test as per EN 361:2002 after being exposed to small molten metal splash test according to ISO 9150:1988 & the webbing has also been tested in accordance with EN ISO 15025:2002.

4. FREE FALL:

Personal fall arrest systems used with this equipment must be rigged to limit the free fall to 4.0 M as per EN 361:2002. Restraint systems must be rigged as per EN 354:2010 so that no vertical free fall is possible. Work positioning systems as per EN 358:2018 must be rigged so that free fall is limited to 1m or less. Personnel riding systems must be rigged so that no vertical free fall is possible. Climbing systems must be rigged so that free fall is limited to 2L+1 or less. Rescue systems must be rigged so that no vertical free fall is possible. See subsystem manufacturer's instructions for more information. Below figure illustrates fall clearance requirements. There must be sufficient clearance below the user to allow the system to arrest a fall before the user strikes the ground or other obstruction. Clearance required is dependent on the following factors:

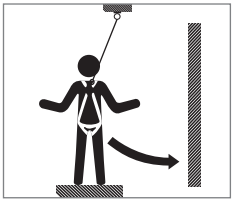
- Elevation of Anchorage
- Connecting Subsystem Length
- Deceleration Distance
- Free Fall Distance
- Worker Height
- Movement of Harness Attachment Element

A	Connecting Subsystem (Energy Absorbing Lanyard Shown)
B	Working Level
C	Lower Level or Obstruction
D	Free Fall 4 mts max as per EN 361:2002
E	Deceleration Distance
F	Total Fall Distance Free Fall (D) + Deceleration (E)



5. SWING FALLS:

Swing falls occur when the anchorage point is not directly above the point where a fall occurs. The force of striking an object in a swing fall may cause serious injury or death. Minimize swing falls by working as close to the anchorage point as possible. Do not permit a swing fall if injury could occur. Swing falls will significantly increase the clearance required when a self retracting lifeline or other variable length connecting subsystem is used.



6. EXTENDED SUSPENSION:

A full body harness is not intended for use in extended suspension applications. If the user is going to be suspended for an extended length of time it is recommended that some form of seat support be used. KStrong recommends an Easy seat. Contact KStrong for more information on this item.

7. ENVIRONMENTAL HAZARDS:

Use of this equipment in areas with environmental hazards may require additional precautions to prevent injury to the user or damage to the equipment. Hazards may include, but are not limited to; heat, chemicals, corrosive environments, high voltage power lines, gases, moving machinery, and sharp edges.

8. COMPATIBILITY OF COMPONENTS:

Unless otherwise noted, KStrong equipment is designed for use with KStrong approved components and subsystems only. Substitutions or replacements made with non-approved components or subsystems may jeopardize compatibility of equipment and may affect safety and reliability of the complete system.

9. COMPATIBILITY OF CONNECTORS:

Connectors are considered to be compatible with connecting elements when they have been designed to work together in such a way that their sizes and shapes do not cause their gate mechanisms to inadvertently open regardless of how they become oriented. Connectors (hooks, karabiners, and D-rings) must be capable of supporting at least 23 kN. Connectors must be compatible with the anchorage or other system components. Do not use equipment that is not compatible. Non-compatible connectors may unintentionally disengage (see Figure 3). Connectors must be compatible in size, shape, and strength. double locking snap hooks and karabiners are required by EN 362:2004.

NOTE: Large throat opening snap hooks should not be connected to standard size D-rings or similar objects which will 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 fixed structural elements such as rebar or cross members that are not shaped in a way that can capture the gate of the hook. (Refer 7 & 8)

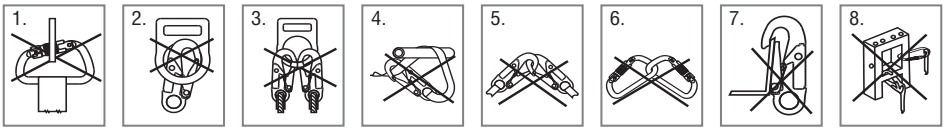


Figure 3.

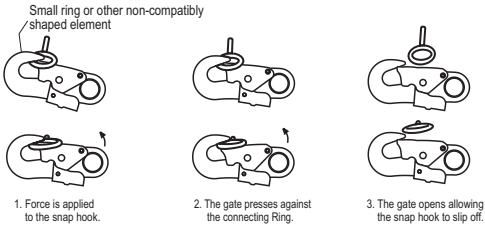
10. MAKING CONNECTIONS:

- Use only double locking snap hooks and karabiners (as per EN362:2004) with this equipment. Only use connectors that are suitable to each application. Ensure all connections are compatible in size, shape and strength. Do not use equipment that is not compatible. Ensure all connectors are fully closed and locked.
- KStrong connectors (snap hooks and karabiners) are designed to be used only as specified in each product's user's instructions. See Figure 3 for illustration of the inappropriate connections stated below. KStrong snap hooks and karabiners should not be connected:
  - In a manner that would result in a load on the gate.
  - In a false engagement, where features that protrude from the snap hook or karabiners catch on the anchor and without visual confirmation seems to be fully engaged to the anchor point.
  - To a D-ring to which another connector is attached.
  - To any object which is shaped or dimensioned such that the snap hook or karabiners will not close and lock, or that roll-out could occur.
  - Directly to webbing or rope lanyard (as per EN355:2002) or tie-back (unless the manufacturer's instructions for both the lanyard and connector specifically allow such a connection) to each other.

11. OTHER RESTRICTIONS:

- Do not make connections where the hook locking mechanism can come into contact with a structural member or other equipment and potentially release the hook.
- Do not connect a snap hook into a loop or thimble of a wire rope or attach in any way to a slack wire rope.
- The snap hook must be free to align with the applied load as intended (regardless of the size or shape of the mating connector)
- A karabiner may be used to connect to a single or pair of soft loops on a body support such as a body belt or full body harness, provided the karabiner can fully close and lock. This type of connection is not allowed for snap hooks.
- A karabiner may be connected to a loop or ring connector that is already occupied by a choker style connector. This type of connection is not allowed for snap hooks.

If the connecting element to which a snap hook (shown) or karabiner attaches is undersized or irregular in shape, a situation could occur where the connecting element applies a force to the gate of the snap hook or karabiner. This force may cause the gate (of either a self-locking or a non-loking snap hook) to open, allowing the snap hook or karabiner to disengage from the connecting point.



12. CONNECTING SUB-SYSTEMS:

Connecting subsystems (self-retracting lifeline, lanyard, Rope Grab and lifeline, cable sleeve) must be suitable for your application. See subsystem manufacturer's instructions for more information. Some harness models have textile loops connection points. Use a snap hook or double locking karabiners (as per EN362:2004) to connect to a textile loop. Ensure the karabiners cannot cross-gate load (load against the gate rather than along the backbone of the karabiners). Some lanyards are designed to choke onto a textile loop to provide a compatible connection. Lanyards (as per EN355:2002), may be sewn directly to the web loop forming a permanent connection. Do not make multiple connections onto one textile loop, unless choking two lanyards onto a properly sized web loop and is permitted by manufacturer.

13. RESCUE PLAN:

Rescue operation must be performed by the trained and competent personal. The rescue operation must be performed under the supervision of the rescue expert team or personal. It is advised that while working on site work in pairs. Before going for the work the user must have the rescue plan according to the work.

14. IF EQUIPMENT IS SUBJECTED TO A FALL:

Remove the equipment from service immediately if it has been subjected to the forces of a fall arrest. Contact your distributor or KStrong about policies regarding replacement of KStrong components involved in a fall.

15. SPECIFIC INSTRUCTIONS:

KStrong harness is designed to arrest the victim of fall and hold the user till the rescue process has been performed, till then the harness needs to be attached to the anchorage through a proper attachment system. So this is important that the whole system must have all the essential components before going for the use. The whole fall arrest system must be used by the trained/competent person. It is advisable to make a checklist of the essential components according to one's use before going for work.

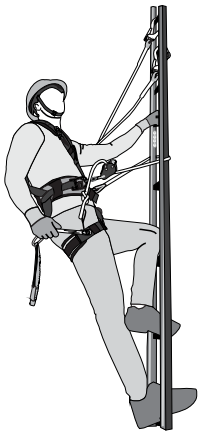
16. USE OF FALL ARREST SYSTEM:

The fall arrest system MUST ONLY be connected to the back attaching element on the harness provided for the purpose ("D" ring or webbing attachment extension) or to the chest anchorage points (webbing link or "D" link). The chest anchorage points must imperatively be used together. The D-rings on the belt and the ventral anchorage point must only be used for the attachment of a work positioning or retaining system and never with a fall arrest system.

During use, check regularly the adjustment and/or attachment points.

17. ANCHORAGE STRENGTH:

The anchorage strength required is dependent on the application type. The following are the requirements of EN 795:2012 for these application types:



- **Fall Arrest:** Anchorages selected for fall arrest systems shall have a strength capable of sustaining static loads applied in the directions permitted by the system of at least 18kN if made from textile and 12 kN if made from metal.
- **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 15 kN, or twice the potential impact load, whichever is greater. 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. For Work Positioning, it is essential for safety of a user to use an anchor point positioned at or above waist level. The lanyard should be kept taut as shown in figure. Ensure that the anchor point is always above the head of the user.

  Note: Work positioning belt attached with harness is approved for a user, including tools and equipment, with a weight of up to 150kg.
- **Restraint:** Anchorages selected for restraint and travel restraint systems shall have a strength capable of sustaining static loads applied in the directions permitted by the system of at least 18 kN for anchorages, It is advisable that one anchorage system shall be limited to one person connection only.
- **Rescue:** Anchorages selected for restraint and travel restraint systems shall have a strength capable of sustaining static loads applied in the directions permitted by the system of at least 18 kN for anchorages.

18. FITTING & SIZING :

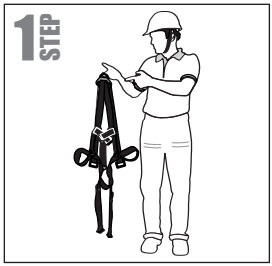
- Only use a harness of suitable size.
- A harness donned either too loose or too tight straps will restrict movement and will not provide the optimum level of protection.

Size: The full body harness is of S-M, L-XL, XXL+ size.

Size of the Waist Belt of AFH300702 ranges from 70 cm to 120 cm.

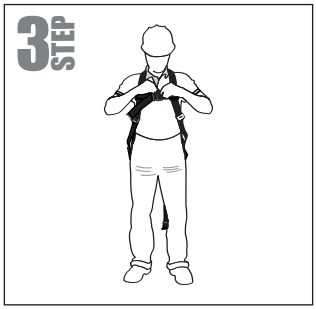
How to wear / donning the Full Body Harness:

Follow step 1 to step 6 to wear the Harness.

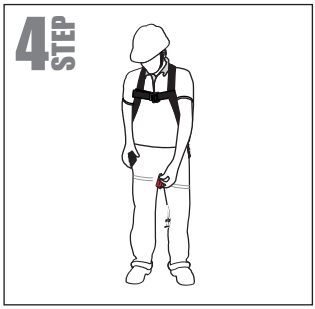


Hold the Harness by the Dorsal D-ring.

Insert your arms into the shoulder straps.

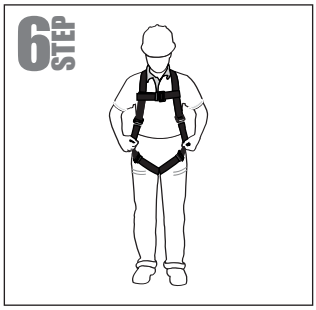


Close the buckle on the chest strap.

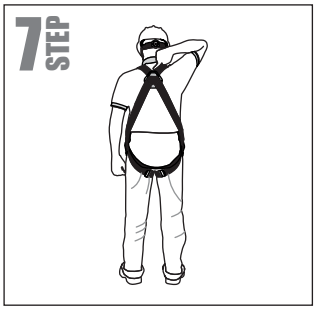


Pull the leg straps one by one around your thighs Outwards to your front.

Close the buckles of the leg straps one by one.



Tighten the leg straps by pulling the free ends of The straps until the harness fits perfectly to the body.



Use the back D-ring or the front as anchor point for fall arrest systems. To locate the anchor points on the harness, check for the "A" marking near them.

Note: To locate the anchor points on the harness, check for the "A" marking near them.
The harness with front anchor point can be used in specific situations along with a fall arrester that needs a front attachment point. While in use, it is important to regularly check fastening and adjustment elements of the harness.

19. MATERIAL : Material of webbing used in Full Body Harness is made up of High Tenacity Aramid.

20. LIMITATIONS FOR USE :

- Personal protective equipment should be a personal issue item.
- The anchor point where the fall arrest system is going to be fixed should always be placed above the position of the user, should have a minimum static strength of 12 kN (18kN if made from textile & 12 kN if made from metal) and should be in conformity to EN 795 requirements.
- Personal protective equipment must not be used by a person with medical condition that could affect the safety of the equipment user in normal and emergency use.
- Personal protective equipment shall only be used by a person trained and competent in its safe use.

21. WARNING:

- A full body harness is the only acceptable body holding device that can be used in a fall arrest system.
- The fall protection system must only be connected to the harness anchor points identified with the capital letter "A". Identification “A/2” indicates the need to join the two points showing the same identification together. It is forbidden to connect the system to a single anchor point identified as “A/2”.
- For harnesses equipped with belt, the work positioning device must only be connected to the lateral D-rings on the belt.
- Connection to the anchor point and other equipment must be done through connectors in conformity to EN 362.
- For use with fall arresters in conformity to EN 353-1, EN 353-2 it is recommended to connect the equipment to the front anchor point on the harness. For use with energy absorbers EN 355 or Fall Arrest Block EN 360, it is recommended to connect the equipment to the back anchor point on the harness.
- Before each use of personal protective equipment it is obligatory to carry out a pre-use check of the equipment, to ensure that it is in a serviceable condition and operates correctly before it is used.
- During pre-use check it is necessary to inspect all elements of the equipment in respect of any damages, excessive wear, corrosion, abrasion, and degradation due to UV, cuts or misuse, especially take into account webbings, seams, burn damage to webbing and stitches, small traces of molten metal, anchor D rings for crack deformation, buckles and adjusting elements for easy adjustability. In case any damage, burn, deformation or above stated detected the equipment should be withdrawn from the use and the same should be disposed of and replaced.
- While using a work positioning system, the user normally relies on the equipment for support, therefore it is essential to consider the need of using a back-up e.g. fall arrest system

22. INFORMATION & ADVICE :

- A rescue plan shall be in place to deal with any emergencies that could arise during the work.
- It is forbidden to make any alterations or additions to the equipment without the manufacturer’s prior written consent.
- Personal protective equipment shall not be used outside its limitations, or for any purpose other than that for which it is intended.
- Before use ensure about the compatibility of items of equipment when assembled into a system. Ensure that all items are compatible and appropriate for the proposed application. It is forbidden to use combinations of items of equipment in which the safe function of any one item is affected by or interferes with the safe function of another. Periodically check the connection and adjustment of the components to avoid accidental disconnection and loosening.
- Personal protective equipment must be withdrawn from use immediately when any doubt arise about its condition for safe use and not used again until confirmed in writing by a competent person that it is acceptable to do so.
- Personal protective equipment must be withdrawn from use immediately when it has been used to arrest a fall.
- It is essential for safety to verify the free space required beneath the user at the workplace before each occasion of use, so that, in the case of a fall; there will be no collision with the ground while using with a sub-system e.g. energy absorber or fall arrester. The required value of the free space should be taken from instruction manual of used equipment.
- There are many hazards that may affect the performance of the equipment and corresponding safety precautions that have to be observed during equipment utilization, especially:
    - Trailing or looping of lanyards or lifelines over sharp edges
    - Any defects like cutting, abrasion, corrosion
    - Climatic exposure
    - Pendulum falls
    - Extreme temperatures
    - Chemical reagents
    - Electrical conductivity
- It is essential for the safety of the user that if the product is re-sold outside the original country of destination the reseller shall provide instructions for use, for maintenance, for periodic examination and for repair in the language of the country in which the product is to be used.

23. TRANSPORT:

The Personal Protective Equipment must be transported in a package that protects it against moisture or mechanical, chemical and thermal attacks.

24. INSTRUCTIONS FOR MAINTENANCE :

Cleaning: The personal protective equipment must be cleaned without causing adverse effect on the materials used in the manufacture of the equipment. For textile (webbing and ropes) and plastic parts wipe with cotton cloth or a soft brush. Do not use any abrasive material. For intensive cleaning wash the harness at a temperature not more than 40°C using a neutral detergent. Metallic parts incorporated in the harness should be wiped with a wet cloth. When the equipment becomes wet, either from being in use or when due to cleaning, it shall be allowed to dry naturally, and shall be kept away from direct heat.

Storage: Personal protective equipment should be stored loosely packed, in a dry and well- ventilated place, protected from direct light, UV degradation, dust, sharp edges, extreme temperature and aggressive substances.

Repair: Any repair shall only be carried out by equipment manufacturer or his authorized representative following manufacturer's procedures.

25. INSTRUCTIONS FOR PERIODIC EXAMINATIONS :

- It is necessary to carry out regular periodic examinations. The safety of the users depends upon the continued efficiency and durability of the equipment.
- The personal protective equipment shall be examined at least every 12 months. The periodic examination can only be carried out by the manufacturer or his authorized representative.
- The comments should be included in the check card of the equipment. After the periodic examination, the next due date for periodic examination will be determined.
- During periodic inspection it is necessary to check the legibility of the equipment marking.
- To check metals for sharp edge, Burs, Corrosion, bent profile distortion and opening & closing or such mechanisms for which that is intended for.
- To check webbings/ropes for breakage, untwisting, frayed, burn, paint, excessive dust or soiling, cut, exposure to chemical or any such elements which can harm the webbing/ropes or can result in compromised performance of the entire system or the device in which it is used.
- Shall be discarded as per procedures given under point instructions for disposal.
- The required annual examinations will validate the correct functioning of the equipment. It is compulsory that the equipment is examined by the manufacturer or his authorized representative at least once a year.
- In case that it have been used to arrest a fall, the equipment must be withdrawn from use.

26. HOW TO DISPOSE A HARNESS:

When the harness becomes unfit or in case of any wear and tear, dispose the harness immediately.

Follow the steps for Disposal:

- Segregate the equipment in three different crates for placing components in them respectively as- Textile, Metal and Plastic.
- Hold the Harness from Dorsal D-ring.
- Inspect the wear & tear present on the Harness.
- Now, using a sharp pair of scissors first cut the Textile and dismantle the harness.
- Now remove the metal & plastic components separately from the harness.
- Put the Textile, Plastic & Metal components in their respective plastic crates.

27. MARKING ON PRODUCT: The Flanil Flame Resistant Full Body Harnesses AFH300701, AFH300702 are marked with the following information:

(a) Main Product Label
- (i) The CE mark showing that the product meets the requirements of the European PPE Regulation (EU) 2016/425
- (ii) Trademark of the manufacturer
- (iii) Type or product code
- (iv) Month and Year of Manufacture
- (v) Pictogram showing max. rated load
- (vi) UID of Traceability
- (vii) Material
- (viii) Size
- (ix) Identification of the manufacturer and address
- (x) Number of the ongoing assessment body
- (xi) Pictogram that indicates to read the instructions
- (xii) Number of the standard

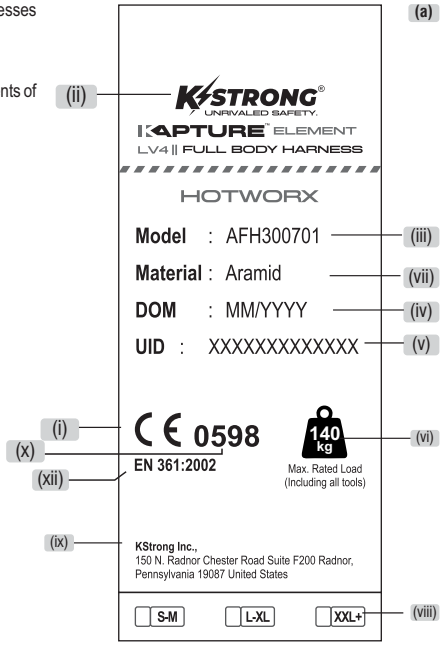
(b) Special Do's and Don'ts for Dienoc

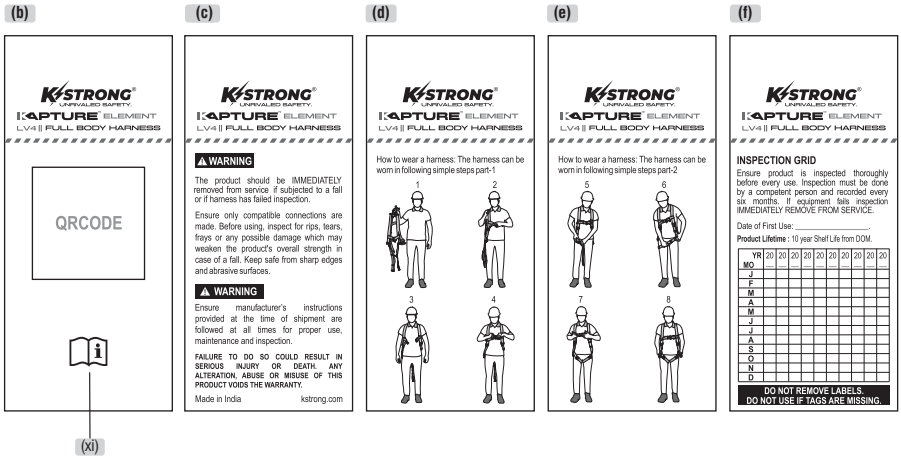
(c) General Dos and Don'ts for Dienoc

(d) How to wear a harness Part-1

(e) How to wear a harness Part-2

(f) Inspection Grid Label





LIFESPAN: The estimated product Lifespan is 10 years from the date of manufacture. The following factors can reduce the Lifespan of the product: intense use, contact with chemical substances, specially aggressive environments, extreme temperature exposure, UV exposure, abrasions, cuts, violent impacts, bad use or maintenance.

DISCLAIMER: Prior to use, the end user must read and understand the manufacturer's instructions supplied with this product at the time of shipment and seek training from their employer's trained personnel on the proper usage of the product. Manufacturer is not liable or responsible for any loss, damage or injury caused or incurred by any person on grounds of improper usage or installation of this product.

EQUIPMENT RECORD		
Product		
Model & type/Identification	Trade Name	Identification number
Manufacturer	Address	Tel, email into use
Year of manufacture	Purchase Date	Date first put into use
Other relevant information (eg. document number)		

PERIODIC EXAMINATION AND REPAIR HISTORY

Date	Reason for entry (periodic examination or repair)	Defects noted, repairs carried out and other relevant information	Name and signature of competent person	Periodic examination next due date

Certification Body :

SATRA Technology Europe Ltd, Bracetown Business Park, Clonee, Dublin D15 YN2P Ireland (Notified Body 2777)

Ongoing Assessment Body:

SGS Fimko Oy, Takomotie 8, FI-00380 Helsinki, Finland (Notified Body 0598)

For EU Declaration, please visit **https://kstrong.com/asia/eu-declaration-form/**

KSTRONG®
UNRIVALED SAFETY.

KStrong Inc.
150 N. Radnor Chester Road Suite F200
Radnor, Pennsylvania 19087 United States
Contact number : 1-833-KSTRONG

www.kstrong.com

USA	South America	ASIA

AKS-AFH300701-160221-V1