



USER INSTRUCTION MANUAL LOAD ARRESTERS

THESE INSTRUCTIONS APPLY TO THE FOLLOWING MODELS:

AFZ1830010, AFZ1830015, AFZ1840010, AFZ1840015,
AFZ1840020, AFZ1850010, AFZ1850015, AFZ18100010,
AFZ18100011 and AFZ18100016

Conforms to
machine directive
2006/42/CE



II 2G
Ex h IIC T6 Gb
EN 80079-36:2016
EN 80079-37:2016

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.

⚠ Cable load arrester are not PPE. They conform to Machine Directive 2006/42/CE

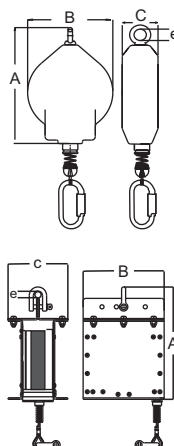
- INTRODUCTION:** KStrong provides a vast range of Cable Load Arresters with different load capacities which are used to stop the fall of a load (basketball hoop, ramp lighting for scenic, industrial machine etc.) Load arrester stop the fall of load for a short distance in case of a break of chain or cable for hoisting the load or a failure of the retaining elements of the load.

TECHNICAL SPECIFICATIONS

Reference	Wire rope length	Wire rope diameter	Max locking speed m/sec	Stopping distance (m) (approx.)	Minimum load capacity (kg)	Maximum load capacity (kg)	Strength of anchorage (kN)
AFZ1830010	10 m / 33 ft.	4.8 mm	1.1	1.19	200	300	15
AFZ1830015	15 m / 49 ft.	4.8 mm	1.1	1.19	200	300	15
AFZ1840010	10 m / 33 ft.	6.0 mm	0.83	1.29	250	400	20
AFZ1840015	15 m / 49 ft.	6.0 mm	0.83	1.29	250	400	20
AFZ1840020	20 m / 66 ft.	6.0 mm	0.83	1.29	250	400	20
AFZ1850010	10 m / 33 ft.	6.0 mm	0.78	1.10	350	500	25
AFZ1850015	15 m / 49 ft.	6.0 mm	0.78	1.10	350	500	25
AFZ18100010	10 m / 33 ft.	8.0 mm	0.56	1.8	400	1000	50
AFZ18100011	11 m / 36ft.	8.0 mm	0.56	1.8	400	1000	50
AFZ18100016	16 m / 152 ft.	8.0 mm	0.56	1.8	400	1000	50

DIMENSIONS

Reference number	Weight	Dimensions in mm (A)	Dimensions in mm (B)	Dimensions in mm (C)	Anchorage Ø mm (E)
AFZ1830010	6.1 Kg	279	224	94	30 mm
AFZ1830015	6.5 Kg	279	224	94	30 mm
AFZ1840010	11 Kg	356	280	109	30 mm
AFZ1840015	11.55 Kg	356	280	109	30 mm
AFZ1840020	12 Kg	356	280	109	30 mm
AFZ1850010	11.5 Kg	356	280	109	30 mm
AFZ1850015	12 Kg	356	280	109	30 mm
AFZ18100010	31.12 Kg	410	296	214	26 mm
AFZ18100011	31.37 Kg	410	296	214	26 mm
AFZ18100016	35 Kg	406	296	249	26 mm

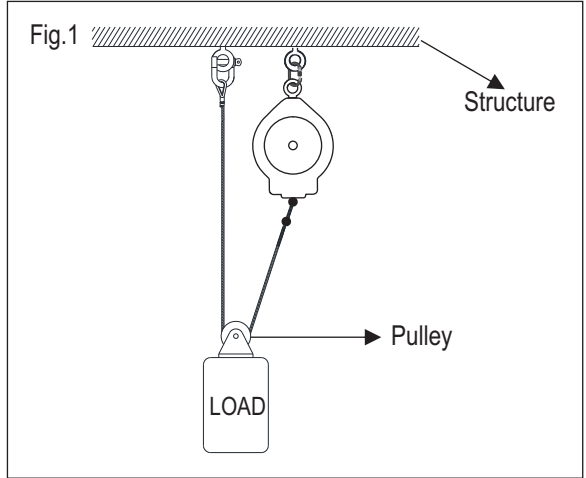


2. **APPLICATIONS:** KStrong load arresters are intended to stop the fall of a load (as a basketball hoop, a ramp lighting...) for a short distance in case of:
- Break of the chain or the cable used for lifting the load.
 - Failure of the retaining elements of the load.
3. **INSPECTION BEFORE USE:**
- Check the system of the wire rope by unwinding it completely and check that the return of the wire rope is done in its totality. BE CAREFUL, always accompany the wire rope by slowing it.
 - There is no wear or deformation over the entire length of the wire rope.
 - Check at the beginning, at the middle and at the end of the wire rope the blocking of the wire rope unwinding by pulling firmly on the wire rope end.
 - There are no wear of the anchors on the device and on the load.
4. **PRECAUTIONS:**
- Ensure the Medical condition of the user does not affect his safety in normal and emergency use.
 - The equipment shall only be used by a person trained and competent in its safe use.
 - A rescue plan shall be in place to deal with any emergencies that could arise during the work.
 - The wire rope is constantly tense, thanks to a retractable system integrated to the device. In case of the fall of the load, blocking systems come into action to stop the fall, and then the braking system comes into action to brake and stabilize the load.
 - Both systems (blocking & braking) work instantly hence, the load is stopped and stabilized in an extremely short time.
5. **INSTRUCTIONS:** These instructions have to be carefully kept and have to be made available to installers and users of the device.
- Check that the load capacity corresponds to the load to ensure.
 - Check the status of the device and of the anchorages before each use.
 - In case of doubt, it is important to not use the device. Please return each device having a defect to KStrong.
 - Each device which has stopped a fall has to be returned for a full checking.
 - You should be informed of the conditions of use of a KStrong load arrester by referring to the instructions for use.
 - You have to use one device by load.
 - Never use a load arrester for a person.
 - Number of cycles a day has to be less or equal to 60.
 - Never stay under the load during the working of the device or after a fall arrest.
6. **INSTALLATION:** Please anchor the device in the vertical axis of the load by using the rotary anchor ring of the device, be sure that the anchor which has to support the device and the load has a minimum resistance of 25 kN. Connect the load to ensure with the wire rope end. Be sure that the points below are well followed:
- Position the load arrester in the vertical axis of the load.
 - Check that no element rubs on the wire rope.
 - Check that no obstacle interferes with the winding and the unwinding of the wire rope.
 - Check that the descending speed of the load is compatible with the blocking speed of the device.
 - Check that the free distance under the load is compatible with the requested distance for a fall arrest.

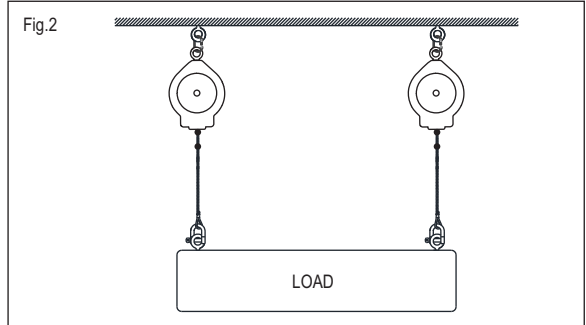
7. POSSIBLE USAGE:

- KStrong Load Arrester can be used to protect the load double to its capacity by passing the line constituent through the mechanical pulley having sufficient strength to support the load of double the strength of Load Arrester. This configuration allows us to achieve mechanical advantage of 2:1 further increasing the load carrying capacity of unit.

Note: Pulley used must be as light as possible and free in movement so as to control the friction forces to minimum. If left unchecked, may affect the retraction as well as activation speed of the Load Arrester to arrest the load. Proper assessment of the receiving structure must be done by an expert to make sure it can sustain the load. (Please Refer Fig.1)



- Large span (horizontal) Load Protection may also be achieved by using multiple Load Arresters at various positions. It is recommended to use the Load Arresters at the extremities of the Load being protected to avoid the swing Loads and instant activation of the locking mechanism. Proper analysis of the receiving structure must be done to ensure its capacity to sustain such high loads. (Please Refer Fig.2 for better under-standing).

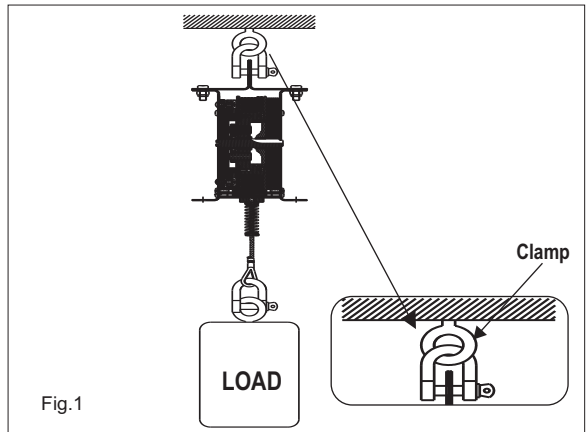


8. WHEN USED OVERHEAD OF MASS (AFZ18100010, AFZ18100011, AFZ18100016):

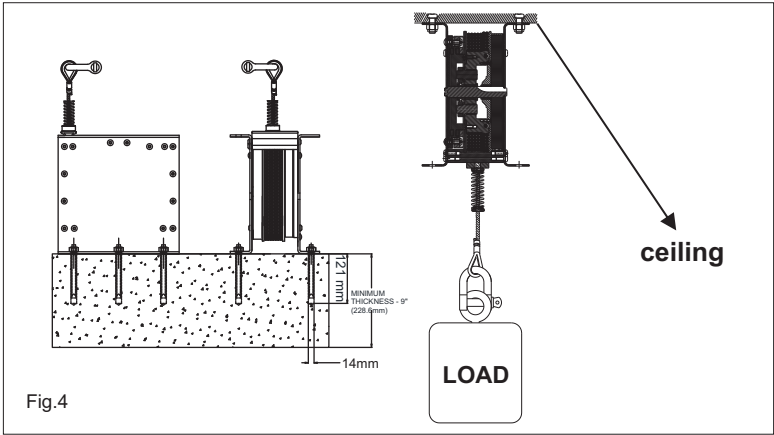
KStrong Load Arresters (AFZ18100011, AFZ18100016) comes with a specially designed clamp to fix it to the overhead structures while the mass (load) is being suspended on to its termination end. (Please Refer Fig.3)

9. WHEN FIXED TO THE STRUCTURE:-

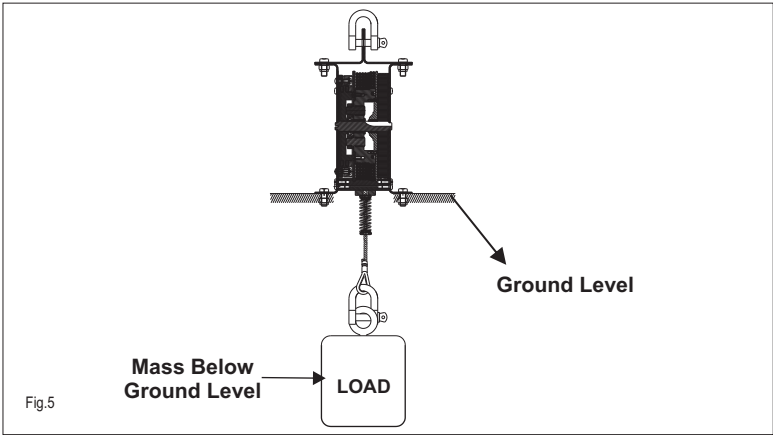
KStrong Load Arresters can also be used while being fixed to the structure, be it concrete or Metal, directly with the help of supplied fasteners. This may be achieved in the following ways:-



- When attached to the ceiling (Please Refer Fig.4)

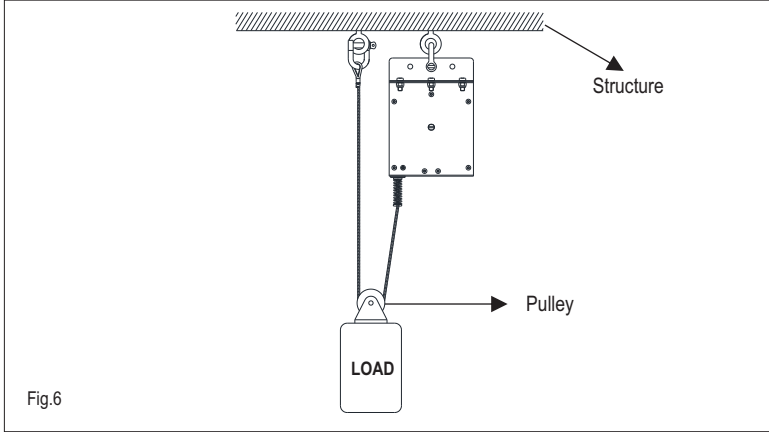


- When attached to the ground (Please Refer Fig.5)

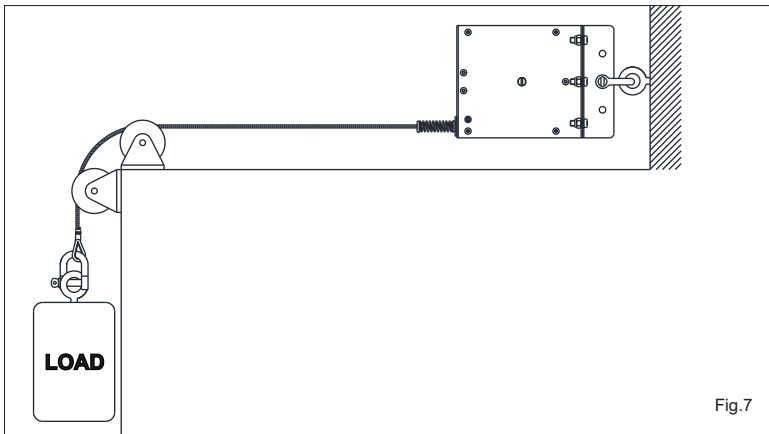


10. POSSIBLE USAGE:-

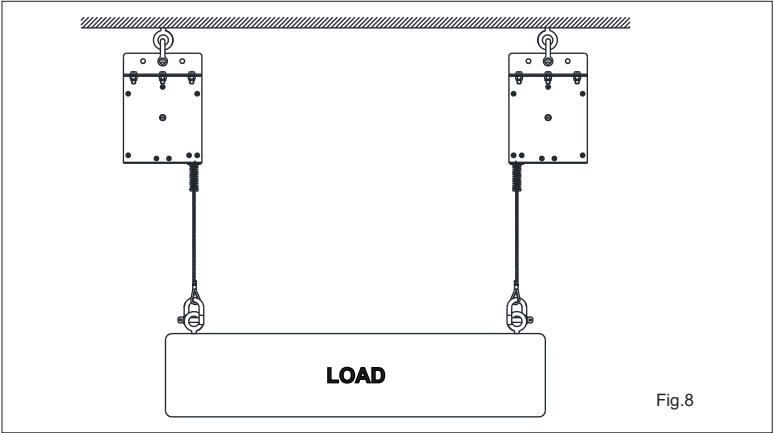
- KStrong Load Arresters can be used to protect the Load double to its capacity i.e. 2000kg by passing the line constituent through the mechanical pulley having sufficient strength to support the load of double the strength of Load Arrester. This configuration allows us to achieve mechanical advantage of 2:1 further increasing the load carrying capacity of unit.
- Pulley used must be as light as possible and free in movement so as to control the friction forces to minimum. If left unchecked, may affect the retraction as well as activation speed of the Load Arrester to arrest the Load.
- Proper assessment of the receiving structure must be done by an expert to make sure it can sustain the load. **(Please Refer Fig.6)**



- In areas where sufficient overhead space is not available to mount the Load Arrester and Load has to be protected, KStrong Load Arresters may be mounted in a horizontal condition. Vertical protection may be achieved by passing the line constituent via mechanical pulley as shown in the figure below.
- Pulley used must be as light as possible and free in movement so as to control the friction forces to minimum. Strength and design of the pulley must be double the value of the Load Arrester being used. **(Please Refer Fig.7)**



- Large span (horizontal) Load Protection may also be achieved by using multiple Load Arresters at various positions. It is recommended to use the Load Arresters at the extremities of the Load being protected to avoid the swing Loads and instant activation of the locking mechanism. Proper analysis of the receiving structure must be done to ensure its capacity to sustain such high loads. **(Please Refer Fig.8)** Please refer the below figure for better understanding.



Minimum Anchorage Requirements- Rope Via Pulley On Load

C

A

B **LOAD**

Model	Anchorage A	Anchorage B	Anchorage C
AFZ18100010	25kN	25kN	50kN
AFZ18100016	25kN	25kN	50kN

11. WARNING:

- The user is warned to be careful about the medical conditions in safety and in normal and emergency use.
- Do not make any alterations or additions to the equipment without the manufacturer's prior written consent. Any repair shall only be carried out in accordance with manufacturer's procedures.
- The Load arrester shall not be used outside its limitations or for any purpose other than Load arrest.
- It should be a personal property of the user.
- It is recommended to regularly check fastening and/or adjustment element during use.
- Care must be taken to avoid any dangers that may arise by the use of combinations of items of equipment in which the safe function of anyone is affected by/or interferences with the safe function of others.
- In case of any doubt arising about the safety of the Load arrester, it should be replaced immediately on consultation with an expert. Withdraw from use any Load arrester that has been used to arrest a Load & return it to the manufacturer or competent repair center for servicing & retest. Do not use again until confirmed in writing by a competent person that it is acceptable to do so.
- It is essential for safety that the anchor device or anchor point should always be positioned and the work carried out in such a way, as to minimize potential Load arrest distance.
- If the product is re-sold outside the original country of destination, the reseller shall provide instructions for use, for maintenance & periodic examination and for repair in the language of country in which the product is to be re-sold.

LIMITATIONS: LOAD ARRESTER IS NOT MEANT FOR PERSONNEL FALL ARREST**12. LIMITATIONS:** Load Arrester is not meant for Personal Fall Arrest.**13. PROTECTIONS AGAINST HAZARDS DURING USE:**

Following hazardous conditions should be avoided for optimum functioning of the product:

- Ageing due to cold, heat, moisture and direct sunlight.
- Deterioration due to chemicals such as oils, acids, solvents and sea water.
- Inappropriate combination with other equipment.
- Use by a person lacking sufficient safety awareness.
- Unnecessary physical loading (static or dynamic).
- Improper use by untrained persons.
- Deterioration through mechanical wear, water or soiling.
- Inappropriate storage, maintenance or cleaning.

14. INSTRUCTIONS FOR MAINTENANCE: Proper maintenance of the equipment is essential for its successful performance. Regular cleaning is essential. In case of minor soiling, wipe with cotton cloth or soft brush. Do not use abrasive material. For intensive cleaning, it should be washed with water using neutral detergents. Do not use acid or basic detergents. Strictly follow

the cleaning procedure as mentioned. If the Load Arrester becomes wet, it should be allowed to dry naturally and kept away from direct heat.

Store in a cool dry place, avoid humid and acidic environment for storage.

15. STORAGE AND TRANSPORT: When not in use, store the Load arrester in a well-ventilated area away from extremes of temperature. Never place heavy items on top of it. If the product is wet, allow it to dry fully before placing it into storage.**16. WARNING:**

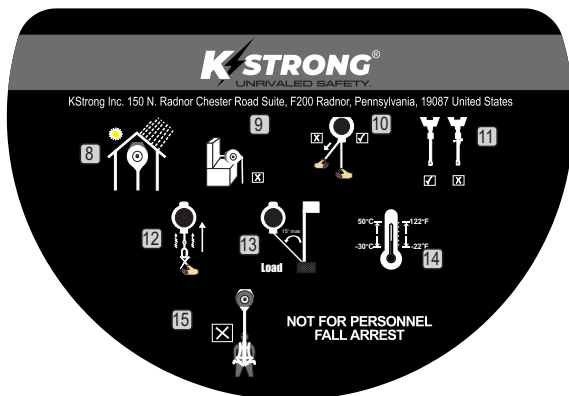
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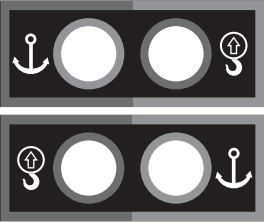
17. INSTRUCTIONS FOR PERIODIC EXAMINATIONS:

- It is emphasized that periodic examination preferably once every year of the Load arrester is done as the safety of the user depends upon continued efficiency and durability of the equipment.
- The periodic examination should be conducted by a competent person and strictly in accordance with the laid procedures.
- Competent person must check the legibility of the markings in every examination.

MARKINGS

1. Maximum Load.
2. Manufacturer's name.
3. Read the instructions before the use.
4. Product reference.
5. Wire Rope Length.
6. UID
7. Date (month/Year) of manufacturing.
8. The system must be stored away from heat and damp.
9. Horizontal use prohibited.
10. Check before each use that the wire rope winds normally.
11. Check before each use that the wire rope is not damaged.
12. Do not release the wire rope but keep a hand on it during its winding.
13. The device must always be positioned in the vertical axis of the load.
14. For a use with temperature between -30° to 50°.
15. Do not use Load Arrestor as a Fall Arrester.

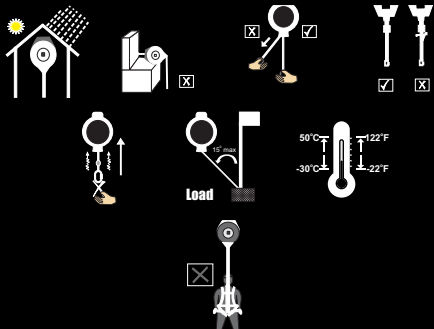




1000 kgs

KSTRONG®
UNRIVALED SAFETY.

KStrong Inc. 150 N. Radnor Chester Road Suite, F200 Radnor, Pennsylvania, 19087 United States



NOT FOR PERSONNEL
FALL ARREST

KSTRONG®
UNRIVALED SAFETY.

DO NOT USE
If the Indicator Turns Red



BRUTE™

LOAD ARRESTOR SERIES
1000 KG

MODEL : AFZ18100010
WIRE ROPE LENGTH : 11M
UID : XXXXXXXXXXXX
MONTH & YR OF MFR. : XX/XXXX

kstrong.com
Made In India



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



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