K STRONG®
UNRIVALED SAFETY.

USER INSTRUCTION MANUAL
BRUTE LEADING EDGE RETRACTABLE FALL ARRESTERS

THESE INSTRUCTIONS APPLY TO THE FOLLOWING MODEL:

AFS510003.5SE, AFS510006SE, AFS510010SE, AFS510015SE, AFS510020SE, AFS550003.5SE and AFS550006SE

CE 0598
EN 360:2002
VG11 RFU # 11.060

CERTIFIED PRODUCT

AUSTRALIA & NZ STANDARDS
Certified to AS/NZS 1891.3:2020
Issued by BSI
Vide Lic. No.: BMP 777809

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. **INTRODUCTION:** The Leading Edge Retractable Fall Arrester for horizontal usage 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 360:2002, VG11 RFU # 11.060 and Australia and New Zealand standards AS/NZS 1891.3 2020.

   These Retractable Fall Arresters for horizontal usage is designed to minimise the risk of/provide protection against the danger of falling from heights. **However, always remember that no item of PPE can provide full protection and care must always be taken while carrying out the risk related activity.**

2. **PERFORMANCE AND LIMITATIONS OF USE:**

   The equipment has been tested in accordance with EN 360:2002 & as per VG11 RFU # 11.060 and AS/NZS 1891.3 2020 has achieved the following performance levels:

EN 360:2002 test	Result/Comment
Clause 4.1 Design & Ergonomics	Achieves required performance as stated in EN 360:2002 (PASS). Lanyard free from sharp or excessively abrasive surface (PASS). No unnecessary features which add significantly to overall mass (Pass).
Clause 4.2 Materials & Construction	Lanyard end terminated with a loop, for connection to harness and fall arrest system (PASS). Lanyard meets static strength requirement (PASS).
Clause 4.3 Locking after Conditioning (EN 364:1993)	After conditioning, it locks & remains locked until released with 5 kg Max. (PASS)
Clause 4.4 Static Strength (EN 364:1993)	12kN sustained for 3 minutes without release (Wire) (PASS). 15kN sustained for 3 minutes without release (Webbing) (PASS).
Clause 4.5 Dynamic Performance (EN 364:1993)	When tested with the test mass of 140 kg, The Arrest force <6.00 kN, Arrest distance <2.00 m (PASS).
Clause 4.7 Corrosion Resistance (EN 364:1993)	Corrosion test in accordance with ISO 9227:1990-24 hours (PASS).

Connectors conforming with EN 362 shall also have a gate resistance (Face and Side) of 6kN Minimum.

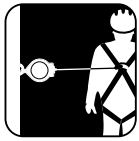
AS PER VG11 RFU # 11.060	Result/Comment
1. Dynamic Performance :	140 Kg mass held
a. Perpendicular to the edge	Breaking force ≤6kN
b. Lateral offset of 1.5 mtr	Breaking distance less than 2mtr
2. Dynamic Strength	
a. Perpendicular to the edge	140 Kg mass held
b. Lateral offset of 1.5 mtr	
3. Static Strength after each Dynamic Strength test	f=3kN (Cable) 4.5 kN (Textile) 3 mints

Fall Clearance Table :

KStrong Code	Test	Deployed length of Energy Absorber (cm)	Arrest Force (kN)	Arrest Distance (m)
AFS550003.5SE	Leading edge test	43	5.00	2.00
	Vertical Testing	5	4.00	1.35
AFS510003.5SE	Leading edge test	75	5.00	2.00
	Vertical Testing	5	4.00	1.35
AFS550006SE	Leading edge test	40	5.00	2.00
	Vertical Testing	5	4.00	1.50
AFS510006SE	Leading edge test	75	5.00	2.00
	Vertical Testing	5	4.00	1.50
AFS510010SE	Leading edge test	90	5.00	2.00
	Vertical Testing	8	4.00	1.50
AFS510015SE	Leading edge test	100	5.00	2.00
	Vertical Testing	8	4.00	1.50
AFS510020SE	Leading edge test	85	5.00	2.00
	Vertical Testing	5	4.00	1.50

3. POSSIBLE USAGE : The Leading Edge Retractable Fall Arrester can be used as a part of a fall arrest system or as a part of a restraint system. If using as a part of fall arrest system, a suitable anchor point (above the user's head, at least 12kN and as per Australia Standards AS/NZS 1891.3 2020 15kN), shall be used. Attachments to the anchor points and other equipment shall be made using EN362 (6kN gate) or ANSI Karabiners.. The equipment is to be used specifically in vertical as well as horizontal condition.

- **Material of the Lanyard-**
  for wire rope block - 4.8mm Galvanized steel wire.
  for webbing block - 25mm polyester textile webbing.



* This Block can also be used in horizontal direction.

4. HOW TO USE

Follow Step 1 to Step 2 to use this equipment.

Step 1 : Connect the anchorage eye of Retractable Block to a suitable anchorage point situated either above the user's head or in horizontal direction using EN 362 (6kN Gate) or ANSI & Karabiners.

Step 2: Now Connect the hook at attachment end of Retractable to the dorsal attachment of your full body harness. User is now safe to move in normal speed.

In the event of a fall, Retractable block locks and also minimizes the impact forces on the body of user, both in vertical and horizontal direction.

5. ADVICE & INFORMATION :

- The Retractable Fall Arrester should be the personnel property of the user.
- Ensure that the Retractable Fall Arrester is compatible with other items when assembled into a system.
- Usage with other un-compatible items may be dangerous & hazardous as the safe function of one item may be affected or interferes with the safe function of another.
- The user should carry out a pre-use check of the Retractable Fall Arrester, to ensure that it is in a serviceable condition and operates correctly before it is used.
- The pre-use check shall involve checking of any wear or abrasion on wire ropes/webbing and sign of corrosion, if any, on metal parts or any breakage of the casing.
- Withdraw from use immediately if there is any doubt about its safe condition or if it has already arrested a fall, the equipment shall not be used again until confirmed in writing by a competent person that it is acceptable to do so.
- Ensure that the strength of the anchor device have a minimum of 12 kN (EN) and 15kN (AS/NZS 1891.3:2020).
- Use Karabiners conforming to EN 362 (6kN gate) or ANSI for connecting to the anchor points.
- It is advisable to use the dorsal attachment D-Ring of the harness for connection to the Retractable Fall Arrester.
- However if it is not possible for any reason, the chest attachment element may also be used.
- It is essential to verify that a minimum 4ms height of free space is available below the user's feet & the ground level at the work place, so that in case of a fall, there will be no collision with the ground or other obstacle in the fall path.
- Following conditions may be hazardous & may affect the performance of Retractable Fall Arrester:-
    - Extreme temperature
    - Trailing or looping of Lanyards over Leading edges.
    - Extreme acidic or basic environments.
    - Abrasive or sharp edge structures which can damage the equipment.
    - Pendulum falls.
- Ensure that manufacturer's packing is used during transportation to prevent damage. In case original packing is not available, use polybag which is sealed to prevent moisture.
- It is essential for the safety of the user that if the product is resold outside the original country of destination, the reseller shall provide instruction for use, for maintenance, for periodic examination and for repair in the language of the country in which product is to be used.
- This is advised that annual inspection should be done by competent person & if any discrepancy is found in product, service will be done at authorized service center only.
- A full body harness is the only acceptable body holding device that can be used in a fall arrest system.

I. Additional information as per VG 11

a. It is possible to use a horizontal retractable type fall arrester over an edge type A

b. It is recommended to avoid the loading of the retractable type fall arrester over edges.

II. Additional information as per VG 11

a. The retractable type fall arrester was tested for horizontal use and a drop over a Type A edge has been successfully tested.

Type A edge definition: A steel edge with a radius of r = 0.5 mm and without burrs was used for the test. Due to this test, the equipment may be used over similar edges, as can be found e.g. at rolled steel profiles, at wooden beams or at a clad, rounded roof parapet. However, the following shall be considered when the equipment is used in a horizontal or transverse arrangement and a risk of a fall from a height over an edge exists:

1. If the risk assessment carried out before the start of the work shows that the edge is very "cutting" and / or "not free of burrs"" (such as in case of an unclad roof parapet, a rusty steel girder or a concrete edge)
    - relevant measures shall be taken before the start of the work to prevent a drop over the edge or, before the start of work, an edge protection shall be mounted or
    - the manufacturer shall be contacted.
2. The anchor point should only be situated at the same height as the edge at which a fall might occur or above the edge.

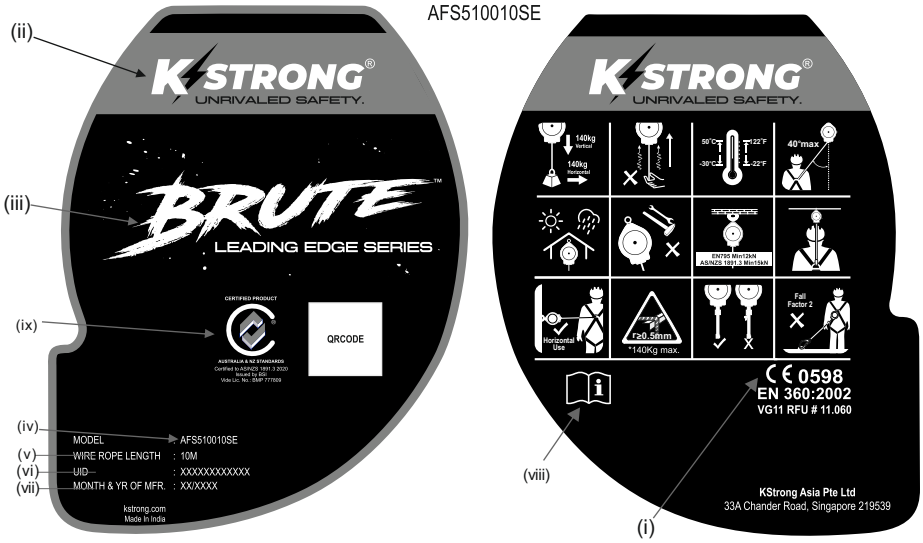
3. Allow adequate clearance of minimum 4 meters below, in order to avoid collision with the adjacent structures or the ground in the event of a fall.
4. To attenuate a drop ending in a pendulum movement, the working area or lateral movements to both sides of the centre axis shall be limited to a maximum of 1.50 m. In other cases, no individual anchor points, but, eg., type C or type D anchor devices in accordance with EN 795:2012 and AS/NZS 1891.3 2020 shall be used.
    a. The Retractable Fall Arrester Block can also be used with Type C anchor device.
    b. The deflection of the anchor device shall be taken into account when determining the clearance required below the feet of the user. To that effect, the indications specified in the instructions for use of the anchor device shall be considered.
    c. Care must be taken to avoid collision with any obstruction in the event of a fall.
    d. It is advised that, for the event of a fall over the edge, special pre-planned rescue measures must be taken under the guidance of a well-trained and competent personnel.

6. INSTRUCTION FOR MAINTENANCE :

- In case of minor soiling, wipe the equipment with cotton cloth or soft brush. Do not use any abrasive material. For intensive cleaning wash in water at a temperature between 25°C to 50°C using a neutral detergent. It should be allowed to dry by itself and be kept away from open fire or any other source of heat, Avoid direct sunlight.
- Store in cool dry place, preferably away from moisture, direct sunlight, extra acidic or basic conditions & sharp edges.
- It is important to check the legibility of the markings in every examination.

7. WARNING :

- Ensure the medical condition of the user does not affect his safety in normal and emergency use.
- The Retractable Fall Arrester 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.
- Do not make any alterations or additions to the Retractable Fall Arrester without the manufacturer's prior written consent and that any repair shall only be carried out by personnel trained by the manufacturer & duly authorized by him.
- The Retractable Fall Arrester shall not be used out side its limitation, or for any purpose other than that for which it is intended.
- Only the models with the Ex marking on the product itself are suitable for use in an Explosive Atmosphere.
- It is essential for safety that the anchor device/point should always be positioned and the work carried out in such a way to minimise the potential for falls and fall distance.
- Periodic examination should be done at least every 12 months, the frequency of periodic examination may increase depending upon the usage condition and environment. periodic examinations shall only be conducted by the manufacturer or organisation authorised by the manufacturer.



MARKING EXPLANATION

Retractable Fall Arrester is marked with :

(i) The 'CE' mark showing that the product meets the requirements of the PPE Regulation (EU)2016/425
(ii) Identification of the manufacturer
(iii) Type of product
(iv) Product Ref. No.
(v) Wire Rope Length
(vi) UID for traceability
(vii) Month& Year of Manufacture
(viii) Read the Instructions before use.
(ix) Marking of Australia Standards AS/NZS 1891.3 2020

INFORMATION GIVEN ON LABEL :-

Keep away from sunlight or heavy rains.

Ensure that the anchorage point has strength of min 12kN (EN) and 15kN (AS/NZS 1891.3).

Ensure that the max angle between the vertical & the lanyard is 40°.

Not recommended in fall factor 2 condition.

Once the Webbing has been reeled out, do not leave It suddenly to retract inside on its own, let it go inside gradually by guiding it slowly inside.

Connect the lanyard to the Dorsal attachment element of your harness.

Use between temperature range of -30°C to + 50°C.

To be used by a person weighing not more than 140kg in vertical direction & horizontal direction.

Do not attempt repair unless trained by the manufacturer.

It can also used for horizontal usage at 140kg.

It can be used on the Leading edges having radius ≥ 0.5mm

Ensure that wire rope has no cuts or abrasion marks before use.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CERTIFIED PRODUCT
QRCODE
AUSTRALIA & NZ STANDARDS
Certified to AS/NZS 1891.3 2020
Issued by BSI
Vide Lic. No.: BMP 777809
MODEL : AFS510003.5SE
WIRE ROPE LENGTH : 3.5M
UID : XXXXXXXXXXX
MONTH & YR OF MFR. : XX/XXXX
kstrong.com
Made In India


KSTRONG®
UNRIVALED SAFETY.
EN795 Min12kN
AS/NZS 1891.3 Min15kN
Horizontal Use
r≥0.5mm
140Kg max.
Fall Factor 2
40° max
140kg Vertical
140kg Horizontal
50°C
-30°C
122°F
-22°F
CE 0598
EN 360:2002
VG11 RFU # 11.060
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Singapore 219539


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Issued by BSI
Vide Lic. No.: BMP 777809
QRCODE
MODEL : AFS510006SE
WIRE ROPE LENGTH : 06M
UID : XXXXXXXXXXX
MONTH & YR OF MFR. : XX/XXXX
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Issued by BSI
Vide Lic. No.: BMP 777809
QRCODE
MODEL : AFS510020SE
WIRE ROPE LENGTH : 20M
UID : XXXXXXXXXXX
MONTH & YR OF MFR. : XX/XXXX
kstrong.com
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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

Note:-

Note:-

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/**

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