

**KSTRONG**<sup>®</sup>  
UNRIVALED SAFETY.



**MICRON**<sup>™</sup>

USER INSTRUCTION MANUAL  
**MICRON BLOCK**

THESE INSTRUCTIONS APPLY TO THE FOLLOWING MODEL:

AFS550002, AFS55002D, AFS550102, AFS550102D, AFS550028,  
AFS550028D and AFC602100, AFC609101, AFC609102 (MICRON  
CONNECTOR)

**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 worker'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.

The Micron Fall Arrestor 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 and Australia and New Zealand standards AS/NZS 1891.3 2020.

This Retractable Fall Arrestor 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.

**1. 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  Clause 4.2 Materials & Construction  Clause 4.4 Static Strength (EN 360:2002)  Clause 4.5 Dynamic Performance (EN 360:2002)  Clause 4.7 Corrosion Resistance (EN 360:2002)	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).  Lanyard end terminated with a loop, for connection to harness and fall arrest system (PASS). Lanyard meets static strength requirement (PASS).  15kN sustained for 3 minutes without release (PASS).  When tested with a test mass of 140 kg, the Arrest force <6.0kN, Arrest distance <2.0m (PASS).  Corrosion test in accordance with ISO 9227:1990-24 hours (PASS).
AS PER VG11 RFU # 11.060	Result/Comment
1. Dynamic Performance : a. Perpendicular to the edge b. Lateral offset of 1.5 mtr  2. Dynamic Strength a. Perpendicular to the edge b. Lateral offset of 1.5 mtr  3. Static Strength after each Dynamic Strength test	100 Kg mass held Breaking force ≤ 6kN Breaking distance less than 2 mtr  100 Kg mass held  f= 4.5 kN (Textile) 3 mins
As per AS per PPE-R/11.124	Result/Comment
Clause -2.8	Retraction function with rotation test (Pass) (The twisting of the retractable lanyards must be excluded by a swivel at the end of each lanyard and at the harness attachment point)

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

**Rated For Fall Factor 2:**

In a Fall Factor 2 condition, the user anchors the lanyard below his foot level.

The impact on the user is highest in this situation.

KStrong Micron has been designed to significantly reduce the impact forces applied to user whilst decreasing the risk of serious injuries when used a foot level.

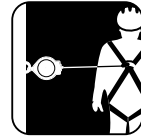
Fall Clearance Table :

KStrong Code	Test	Deployed length of Energy Absorber (cm)	Arrest Force (kN)	Arrest Distance (m)
AFS550002	Leading edge test	50	5.00	1.50
	Vertical Testing	35	5.00	1.50
AFS550102	Leading edge test	50	5.00	1.50
	Vertical Testing	35	5.00	1.50
AFS550028	Leading edge test	50	5.00	1.50
	Vertical Testing	35	5.00	1.50

2. POSSIBLE USAGE:

This 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 12 kN EN & 15kN for AS/NZS) shall be used. Attachments to the anchor points and other equipment shall be made using oval karabiners conforming to EN 362(with 6kN Gate Strength) or ANSI Karabiners.

**It can be used on the Edges having radius > 0.5mm**



\* Micron can also be used horizontally.

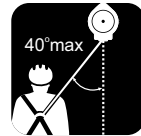


\* It can be used where the Anchorage point is available at foot Level also.

3. HOW TO USE :

**STEP 1:** Connect the swivel eye at the top of the retractable fall arrester to a suitable anchorage point situated above the user's head using Karabiners as per EN 362 (6kN Gate ) or ANSI & ensure the Karabiners are locked.

**STEP 2:** Now connect the swivel hook of the equipment to the attachment element of your full body harness and ensure that it is locked. You are now safe to move up & down in normal speed. In the event of a fall, the retractable fall arrester locks and also minimizes the impact forces on the body of user.



Follow Step 1 & Step 2 to use this equipment in vertical condition.

**Follow Step 3 & Step 4 to use this equipment as single Lanyard.**

**STEP 3:** Connect the swivel eye of the retractable fall arrester to the dorsal attachment of the full body harness with the help of connector and ensure the connector is locked.

**STEP 4:** Now connect the steel scaffold hook at the termination end of the device to the structure and ensure that it is locked. You are now safe to move up & down in normal speed. In the event of a fall, the retractable fall arrester locks and also minimizes the impact forces on the body of user.

Similarly, it can be used where the anchorage point is available at foot level by just connecting the swivel eye of the retractable to the anchorage point and the hook at termination to the dorsal attachment of harness.

**HOW TO USE MICRON AS A SINGLE OR TWIN LANYARD WITH MICRON CONNECTOR (AFC609101)**



Open connector by pushing the locking lever and push button at the end simultaneously.



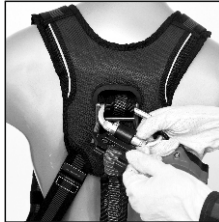
Slide Connector through loosened web straps placed below the Dorsal D-ring, then pull straps tight.



Push the pin inside the grooves of the connector to ensure locking.

**HOW TO USE MICRON AS A SINGLE OR TWIN LANYARD WITH  
MICRON CONNECTOR (AFC609100)**

Insert one Micron Block in the karabiner and insert the karabiner in the webbing loop at the Dorsal.



Insert the separator in the karabiner.



Now insert the second Micron Block.



Move the karabiner to be placed in the centre.

**HOW TO USE MICRON AS A SINGLE OR TWIN LANYARD WITH  
MICRON CONNECTOR (AFC609102)**

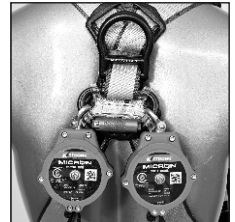
Insert one Micron Block in the karabiner and insert the karabiner in the webbing loop at the Dorsal.



Insert the separator in the karabiner.



Now insert the second Micron Block.



Move the karabiner to be placed in the centre.

**4. WARNING:**

- Ensure that 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 outside its limitation, or for any purpose other than that for which it is intended.

**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 non 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 webbing and sign of corrosion, if any on metal parts or any breakage of the plastic casing made of glass reinforced polyamide material.
- 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 is greater than 12kN (EN) & 15kN (AS/NZS).
- Use karabiner conforming to EN 362 for connecting to the anchor points with a minimum 6kN Gate or an ANSI Karabiner.
- 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 between the Retractable Fall Arrester & the ground 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.
- It is very important to conduct and record periodic examination of the device and the safety of user depends on continued efficiency and durability of the product.
- Always check the labels are intact and legible.
- Following conditions may be hazardous & may affect the performance of Retractable Fall Arrester:-
  - Extreme tempratures
  - Trailing or looping of Lanyards over Edges.
  - Extreme acidic or basic environments.
  - Abrasive or 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 found any discrepancy in product, service will be done at authorized service center only.

#### **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.

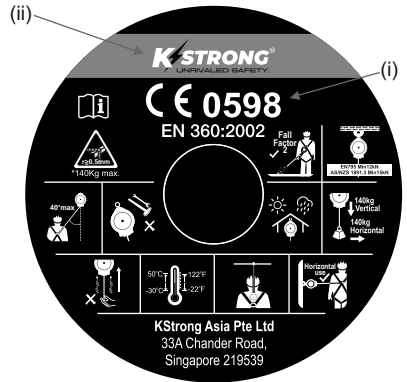
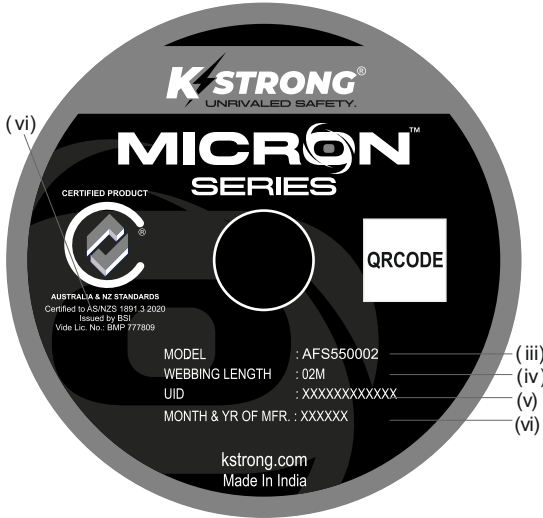
#### **II. Additional Information as per VG 11**

- a. The retractable type fall arrester was tested also 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, e.g., type C or type D anchor devices in accordance with EN 795:2012 or AS/NZS 5532:2013 shall be used.
    - a. 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.
    - b. Care must be taken to avoid collision with any obstruction in the event of a fall.
    - c. 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 :**

- Follow the maintenance instructions procedure strictly.
- 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 or any other source of heat. Avoid direct sunlight.
- Store in a cool dry place, preferably away from moisture, direct sunlight, extra acidic or basic conditions & Edges.

**Label**



**MARKING EXPLANATION:**

The 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 or product code
- (iv) Webbing Length
- (v) UID for traceability of Product
- (vi) Month & Year of Manufacture
- (vii) Marking of Australia Standards AS/NZS 1891.3 2020

**ICON EXPLANATION**

Keep away from sunlight or heavy rains.



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



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



Micron Block can be used where the Anchorage point at foot level.



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 and horizontal direction.



Do not attempt repair unless trained by the manufacturer.



It can also used for horizontal usage.



It can be used on the Edges having radius  $\geq 0.5\text{mm}$



Read the Instructions before use.

**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.

<b>EQUIPMENT RECORD</b>				
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)				
<b>PERIODIC EXAMINATION AND REPAIR HISTORY</b>				
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 Asia Pte Ltd**

33A Chander Road, Singapore 219539  
Contact Email: [customer-care@kstrong.com](mailto:customer-care@kstrong.com)

[www.kstrong.com](http://www.kstrong.com)

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